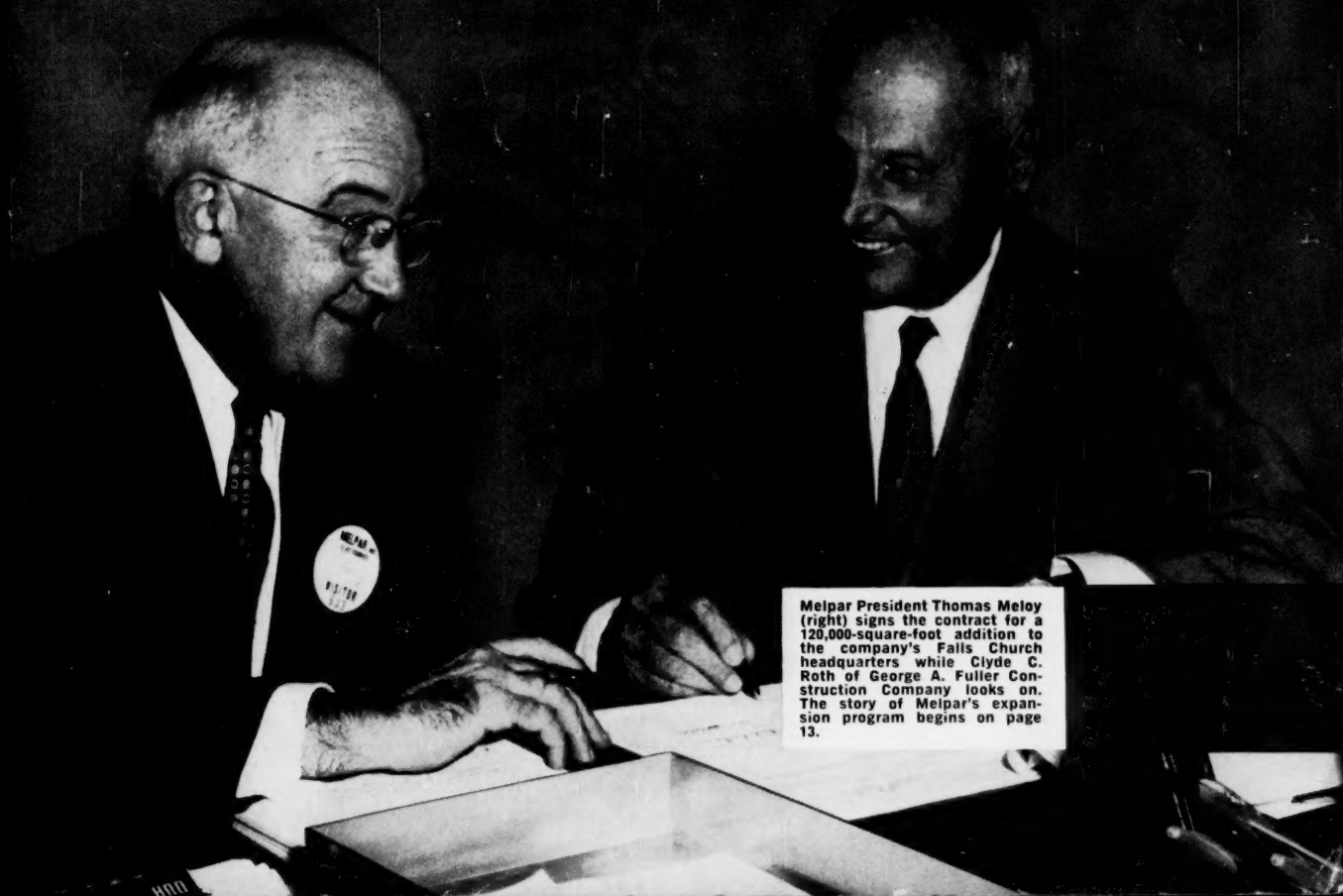
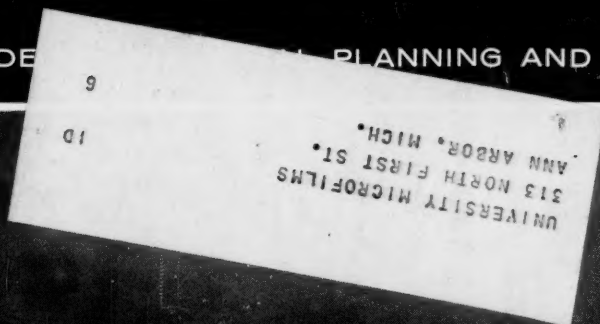


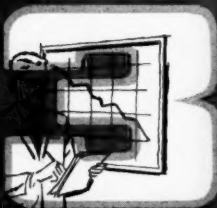
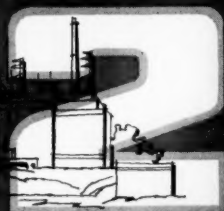


DEVELOPMENT

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Melpar President Thomas Meloy (right) signs the contract for a 120,000-square-foot addition to the company's Falls Church headquarters while Clyde C. Roth of George A. Fuller Construction Company looks on. The story of Melpar's expansion program begins on page 13.

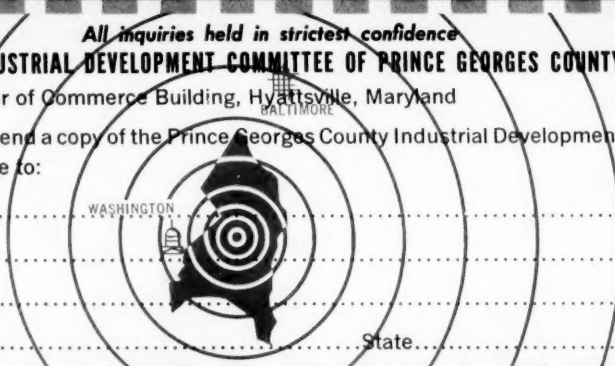


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CHECK POINTS

By the time you read this, we'll know the name of the next President of the United States. Already, we know he will be a highly competent, aggressive young man who is committed to a substantial increase in our national economic growth rate. There have been suggestions that we set as our goal the doubling of our rate of growth in the next administration.

This is, and will continue to be, a huge question. In fact, it raises a whole multitude of questions. What is growth? Is it really desirable or necessary to promote a substantial (however that may be defined) increase in the rate? Just because some nations show annual rates of GNP expansion of 6 or 8 percent per year, does this mean that 3 percent is wrong for the U. S.?

Going a little further, how would we go about promoting a big acceleration in growth? What specific problems would this pose for those who are really responsible for economic expansion — the planning executives in industry, and the development specialists who serve them in thousands of organizations and associations?

The candidates, being astute politicians, have not answered these questions. They know a hot potato when they see one. So, during the last week of the campaign, we put these questions to the members of our editorial advisory board. These are men, we remind you, who are not political spokesmen — they are among the best-informed people in the country in the field of industrial growth. We think their observations are significant.

First, is a substantial increase in growth rate desirable? DuPont's J. W. Pochomis says "yes" to a moderate rise. He points out "Actually, the post-war rate of 3.5 percent a year has exceeded our long-range growth rate of 3 percent a year. If a 3.5 percent rate could be maintained throughout the 1960's the nation would be assured of a rising standard of living, a rising level of defense and public services, and full utilization of our productive resources."

Huber Denn, AIDC Secretary, agrees with Pochomis, stating "I think a substantial increase in the annual industrial growth rate is necessary if we are to produce sufficient goods for our rapidly expanding population." Warren Farmer adds his endorsement to this concept.

Others are reluctant to go along, however. Frank Mueller, in the nation's capitol, reminds that "the maximum rate of growth may not be the best rate, for there is a price to pay." This price, he documents, may be increased government regulation, inflation, and loss of freedom. Most respondents wanted to hedge because of the vagueness of the proposed "substantial" increase (apparently our advisors don't understand politicians).

On the question of how to achieve a rapid rate of growth — assuming this to be desirable — there was surprising unanimity. Almost all of our panel of experts, regardless of the group they represent, believe this can best be achieved by encouraging private enterprise.

Stewart G. Neel suggests several approaches "chief among them being a more equitable Federal income tax program. Corporate taxes should be reduced to levels which permit business to accumulate capital for reinvestment and growth." Huber Denn adds an "Amen," stating also "confiscation of income in the upper brackets has discouraged venture capital and in many instances kept new products off the market."

CHECK POINTS

Al Redman, of Ohio, observes that we have achieved our present rate of growth despite the interference of government. "It would be most interesting to know where our growth rate, our standard of living, and our income might have been if government interference and competition had been kept to a minimum."

Regarding policies for achieving moderate acceleration, Pochomis also stresses that this expansion should occur primarily in the private sector of the economy: "Consumption expenditures of individuals and private domestic investment together account for four-fifths of Gross National Product. Without an increased rate of growth in these factors, a higher growth rate for the entire economy will be difficult to achieve. Increased government activity alone cannot do the job. If increased government expenditures are matched by rising taxes, private activity will be reduced correspondingly. If the government finances a rising level of expenditures by borrowing from the banking system, growth in the price level may be the result rather than an increased rate of **real** growth."

Continuing, Pochomis says: There are no panaceas or magic formulae to produce growth. "Growth" is simply another way of measuring output (i.e., its rate of rise from year to year). And output depends ultimately on (a) the number of people at work, and (b) the efficiency with which they work. Proposals to accelerate growth must recognize and be tested in terms of their impact on these basic facts.

Several of our experts point out that we need to know a great deal more about the growth mechanism. In this category are Stuart Walsh, Mel Peach, Robert Boley, and Charles Hamman. Stanford Research's Hamman sums it up with this observation: to make an intelligent decision "would involve both the acceptance of a specific set of objectives and a thorough understanding of the implications of a changing growth rate. I don't believe we have either and I further believe that this is an area where substantial research is needed."

Certainly, if we need research to determine what our national economic goals should be, we need intensive research to determine how best to approach these goals. Here again, Hamman makes an astute observation: "I do not know what you meant by the expansion planning profession but I presume you meant to embrace all of those who are concerned with the planning of public and private investment. The problem here, it seems to me, is one of balance. Given the political and economic structure of the country as we know it, the decision-making process in the public sector is considerably more cumbersome and slower than it is in the private sector. High economic growth rates in terms of private investment in business enterprise often create serious lags on the public side."

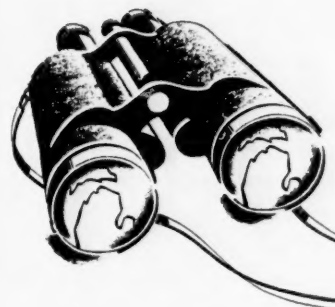
In areas of high growth rate like California, the results are visible on every hand. The ability of our various governmental agencies to meet the problems of schools, roads, water supply and other public facilities, to say nothing of adjusting our cities and metropolitan areas to rapidly growing and rapidly changing conditions is a real problem. The higher the rate of growth, the more rapid and hence the more difficult this adjustment is."

"If our growth rates were to be stepped up substantially, better means would have to be found to keep the growth of all of the elements necessary to a balanced social and economic structure in line with one another. Not only the ability to forecast and to plan, but also the implementing mechanisms would have to be sharpened substantially."

From these few comments, we find strong confirmation of our oft-repeated expression that the science of expansion planning is still in its infancy. So, without hesitation we can say that it is desirable to achieve a maximum rate of progress in the evolution of this new science. Here's a challenge worthy of the best efforts of all of us, including that dynamic young man who is to be our next President.

—H.M.C.

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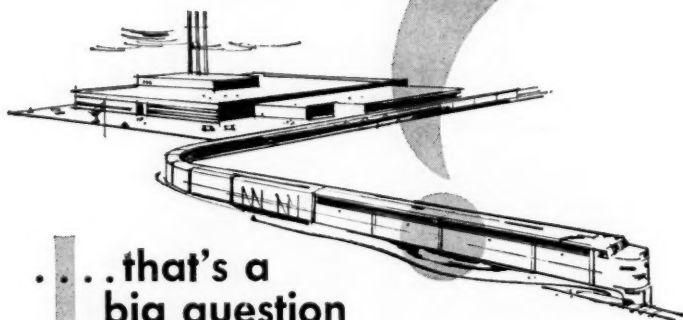
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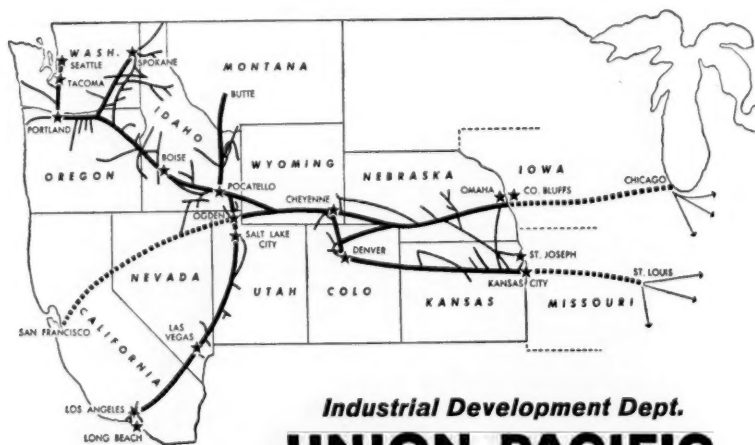
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SIRS: I would like to add a note of caution in the findings of Dr. Bergin outlined in the article "Are Subsidies Worth While" appearing in the July, 1960 issue of *INDUSTRIAL DEVELOPMENT*.

First, I have not had an opportunity to read Dr. Bergin's dissertation which formed the basis for this article. However, I did read an article by Dr. Bergin on this subject in the January, 1960 issue of the *Michigan Business Review*, entitled "How Effective are Industrial Development Programs?"

From my readings of the article, I question the amount of basic understanding Dr. Bergin has of state-wide and local development programs. The only good, comprehensive work available on this subject is "Developing the 'Little' Economies" by Donald R. Gilmore, written for the Committee for Economic Development, and even this is admittedly a pioneering work.

It is hazardous to base a study of this subject as Dr. Bergin has on a survey of firms which have located in an area. Unless the officials interviewed from the firms were involved in making the decision on the plant location, chances are they may not be qualified to give all the reasons behind the decision to locate. It has also been my experience that firms do not always make known all the reasons a certain community is selected for a plant.

Dr. Bergin seems to imply what he terms "subsidies" to be normally questionable and of little final effect in determining plant locations. We have all come to define subsidies as any practice carried on by a neighboring organization which is beneath our dignity to engage in. But in truth, any development program — state or local — is in and of itself a subsidy to firms looking for a location. We are making available information which would cost the firm millions of dollars and man hours to collect. And any development program that loans money at 2% interest today is only in degree offering a subsidy equal, if not greater, than 5 years free taxes or some other type of program.

There is a great need for a comprehensive objective study of the whole subject of "subsidies." Until it is completed, my advice to any community or state would be to disregard Dr. Bergin's article, get good sound information on the financial and managerial ability of the prospect, make the best possible detailed analysis of the benefits to the community, and as long as the net results in their estimation are favorable, the community make any "subsidies" they desire.

WILLIAM B. WRENCH, Exec. Dir.
Fairfax County Economic and
Industrial Development Committee
Springfield, Virginia

► We have received several letters of praise for Dr. Bergin's article — here is an opposite view.

SIRS: The article entitled "Progress Report on New England," by Frank H. Stedman, that appeared in the July, 1960 issue of *INDUSTRIAL DEVELOPMENT* magazine was a very excellent piece of writing. I wondered if we might have your permission to reproduce this article for local distribution. We are contemplating a quantity of about 500.

LETTERS

I would also like to purchase another half dozen issues if they are available.

RICHARD H. GRAHAM
Advertising Supervisor
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SIRS: The September 1960 issue of **INDUSTRIAL DEVELOPMENT** and **MANUFACTURERS RECORD** contains an excellent article entitled "Need Help to Gauge Labor Pool?" which gives an accurate account of Employment Security services.

We are writing to ask if it is possible to secure reprints of this article by Mr. William U. Norwood, Jr., Assistant Director of the Bureau of Employment Security, which appeared in your publication. If reprints are available, we are desirous of determining the cost of a dozen copies.

If no reprints are available, we would like permission to copy the article, giving credit to your publication, for distribution to other interested individuals.

Because of the infrequency with which national publications print an accurate picture of Employment Security operations, it is gratifying to find such an article in your magazine.

MR. DON F. LARSON
Public Relations Representative
Employment Security Agency
Boise, Idaho

► Reprints of the article are not available but permission to reprint is granted.

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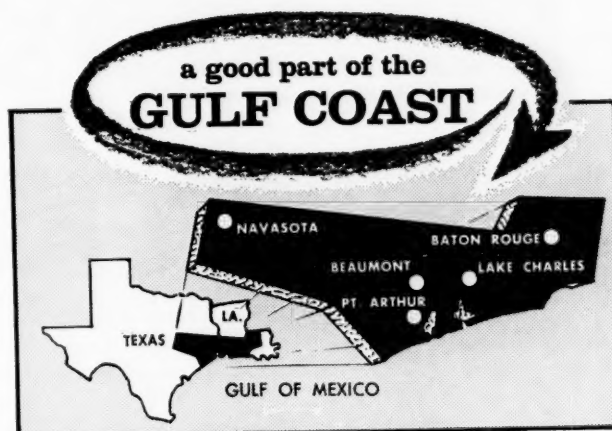
H. M. Conway, Jr., Publisher

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LET'S GO

By H. E. Humphreys, Jr.

Speaking from wide experience and long-range, first-hand studies of the international economy, one of the nation's top industrial executives makes the point here that Western Europe today bids fair to being a businessman's utopia. Referring to a recent trip there, he says: "I was reminded anew of the tremendous resurgence which is taking place in free Europe." His advice is for expansion-minded industrialists to consider carefully the opportunities which exist overseas.

I shall begin by pointing out an interesting and promising business situation. Then I want to show how this promising situation presents both a problem and an opportunity for us American businessmen. Finally, I shall suggest several ways for us to take advantage of this opportunity.

To get a picture of this promising business situation, just think for a moment of an economic system in which productivity is increasing faster than wages.

Think of an economy where inflation has ceased to be a problem.

Where home markets are rapidly broadening.

Where overseas trade is expanding.

Where capital is becoming more easily available.

Where technological progress is excellent.

Where the currency is stable.

Where many of the industrial

U.S. Rubber Company Board Chairman H. E. Humphreys, Jr. (right), shown discussing a business problem with Company President John W. McGovern, began his business career at the age of 17 as a clerk in the office of the Pennsylvania Railroad at Philadelphia where he was born. He subsequently worked as a stenographer for Toledo Scale Company, as an auditor for Price, Waterhouse and Company, and later joined Christiana Securities Company, Wilmington, Delaware where he rose to the position of secretary and assistant treasurer. Mr. Humphreys was elected a vice president, director, member of the executive and finance committees of United States Rubber Company in 1938. He has been chairman of the board, as well as chairman of the executive committee and chief executive officer for a number of years. The accompanying report was adapted from a speech he made recently at the 88th annual meeting of the Manufacturing Chemists Association.



GLOBAL!

plants are ultra-modern — having been built within the past 15 years.

Does this sound like a businessman's utopia? These conditions actually exist. I have described the economic situation in Western Europe at the present time.

Just recently I made one of my several trips to Europe. I was reminded anew of the tremendous resurgence which is taking place in free Europe.

In just the past few years, a business philosophy which for 150 years held a firm grip on the European economy has been swept away. Today, vigorous competition is shouldering aside the philosophy of controlled markets. The idea of narrow markets and high markups has been replaced by the new concept of mass markets built around the European Economic Community, usually referred to as the European Common Market. These new mass markets are fed by mass production from efficient plants.

I should add that the motive be-

hind this change is not business success alone. It stems from a dedication to a united Europe for purposes of common defense. Out of this dedication has flowed a new political and economic unity. But regardless of the motive, the result in the business field is the same.

On my trip I sometimes got the strange feeling that I was not in quaint, old slow-changing Europe at all but in a land where American methods of free opportunity had been carried a few steps beyond anything we have ever achieved here in the United States.

For example, take the Opel automobile plant in Germany. It is just about the last word in mechanized production. A huge body press is attended by a single man at the controls. As you look at it and marvel at its efficient operation, your guide will tell you, "Next year even that one man won't be there." Renault in France has a plant that is fully as efficient and the Fiat plant in Italy takes a back seat to nobody.

This swing to automation in Europe is not so much to reduce costs as it is to combat a labor shortage. This is particularly true in Western Germany. To achieve a higher standard of living, they must get more output from the limited labor supply through better machinery.

We taught our friends abroad how to mass produce for mass markets. We provided financial aid for them to get started. They have learned their lesson well. Now they are beginning to equal or beat us at our own game of competitive mass production and marketing. The impact on their standard of living has been remarkable.

As an example, on my earlier trips to Europe — the first was 13 years ago — I thought it was wrong that workers should be riding bicycles to automobile plants to turn out cars for the upper classes. The plants were characterized by bicycle racks. But today these same plants have their car parks. A great

middle class is rapidly emerging.

It does my heart good to see other people adopt the methods of my own country and thereby build a new high standard of living for themselves. Yet, I have to face the fact that this promising situation presents to us in American industry a type of problem we have never known before.

There was a time when many American businessmen looked upon foreign trade as a supplementary market — as a means to dispose of surplus production or merchandise which did not sell well at home. This was not universally true. In some industries, such as automotive, export business was an integral part of their operations. But such industries were exceptions.

Furthermore, the return flow of goods to the United States was no problem until recently. The usual imports were a limited quantity of quality goods for the luxury trade. And the low quality merchandise could not compete with our own output. As a result, our imports were usually less than our exports.

But in the last few years we have suddenly developed an unusually large dollar gap. In 1959 there was a net outflow of 3.7 billion dollars from the United States. This was by far the largest deficit in balance of payments our country has ever known. Although it included foreign aid payments as well as goods and services, it still indicates a possible trend of startling proportions.

We now find goods coming in from overseas in large quantities and underbidding us both in our own markets in the United States and in our normal export markets. The quality and styling of these goods are mostly excellent. The styling of Europe's automobiles has had a tremendous impact, as we all know.

The greatest source of this new competition is Western Europe. But Japan is also coming up fast. And it may not be long before we get similar competition in particular products from Latin America, India and some of the African nations. As we look ahead, there are also Russia and Red China.

As for Russian competition, it is somewhat sporadic and seems to be politically inspired. But before we worry too much about it, let us de-

vote our attention and planning to the competition of free Europe, particularly the European Economic Community. Meanwhile, as we consider the future threat of Russian competition, we can remember that Russia will have to compete not only with the United States but also with a resurgent free Europe — in fact with the whole free world.

Over the short term, European competition can have a retarding effect on our American economy. I think we are beginning to feel it already and we shall feel it more. It can also damage the prestige which the dollar has enjoyed throughout the world. This situation points up the need for businessmen to bring about greater productivity and better control of wage inflation, thereby protecting the value of the dollar. Otherwise it can threaten the American position of world economic and political leadership.

Resurgence Abroad

That is the problem presented by business resurgence abroad. Now let's turn to the opportunity it offers. Because, if we take full advantage of the opportunity, we can solve the problem at the same time.

Look at it this way: These great new mass markets now opening up at a rapid rate can be our markets as well as the markets of our competitors abroad. This is actually the dawn of a new era in which the desire for a higher standard of living has been implanted in the minds of added millions of people in many parts of the world. And they have been given the economic opportunity to achieve that higher standard of living.

In many countries lately, living standards have increased faster than in the U.S.A. For example, in Western Germany, between 1950 and 1958, gross national product per capita advanced 110 per cent, compared with 35 per cent in the U.S.A. In France the increase was 60 per cent and in Australia 81 per cent.

The only question for us is how we can take advantage of this great new opportunity. One course is to produce quality goods in the U.S.A. for export at competitive costs. The other is to invest and produce abroad, to become a part of the economy of other countries — in short, to go international.

I feel that we should pursue both courses, and the latter deserves our special attention.

Before I suggest how we might proceed, I want to come to grips with a very sticky matter, and that is protective tariffs.

If a company already has tariff protection — as mine does on various rubber products — I would fight persistently to keep it.

Let me illustrate why I say this. Take rubber footwear. In 1957 the United States imported 6 million pairs of Japanese rubber footwear. The figure jumped 19 million pairs in 1958 and 53 million pairs in 1959. In the first quarter of this year, these imports exceeded total U.S.A. production. We estimate that for the whole year they will come to 120 million pairs.

And that's only the imports from Japan. There are others. Rubber footwear is coming in from Hong Kong at an increasing rate. There's good reason. The 71 rubber footwear factories in Hong Kong employ 7,000 people, who work nine hours a day at wage rates ranging from 6 cents to 14 cents an hour. In the United States, rubber footwear employees are paid an average of \$2.01 an hour, not to mention fringe benefits, which run as high as 61 cents an hour.

These are the conditions which cause me to fight tariff reductions. But if one takes a realistic long term view, one realizes that high protective tariffs have no permanent place in free world markets. Therefore, our plans must be based less and less on protection and more and more on the self-reliance of higher productivity.

To accomplish this we must, of course, resist more vigorously any wage increases that outstrip increased productivity and thereby increase the gap between our costs and those of other nations. And we must eliminate featherbedding.

Tariffs are levied primarily to protect jobs. But jobs cannot be created out of thin air. As time marches on they must stem from a profitable operation able to hold its own against world wide competition. This we can accomplish chiefly through the investment in more efficient machines — automation, if you please — in order to bring out costs into a competitive range.

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New industries are being born and new plants are being built to seize the new opportunities. Last year alone, nearly \$55 million was invested in new forest products facilities, with more to come.

It is typical of the expansion everywhere in this surprising state as industry takes inventory of Washington's added advantages. Power is more plentiful than anywhere in the U. S., taxes more favorable than elsewhere in the West, and buying power, population growth and productivity of labor all far higher than the nation's average.

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**THE SURPRISING
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HUMPHREYS

My conclusion, therefore, is that we cannot build our future on tariff protection.

On the other hand, there are some things on which we **can** build our future in free world trade. I have six suggestions:

Point of View

The first thing we can do to take advantage of our world-wide opportunity is change our point of view. We have tended too much to look upon competition between nations as a form of economic war. We have visualized the U.S.A. as pitted against the rest of the world in this battle to win markets and maintain economic leadership.

Why should we take this view as among free nations operating under a similar capitalistic system, any more than we should think in terms of economic competition among various areas of the United States? Within our own country, competition is among individual companies wherever they are located. If one area of the country has low production costs because of an advantage in raw materials, labor or nearness to market centers, then we build new plants there. We also gear our marketing effort to take advantage of customer demand wherever we find it.

Would you as readily build a plant in India as in Indiana? Some companies are already thinking that way. All of us should see the free world as an expanded market for us — an opportunity to take advantage of great population groups who have acquired a thirst for economic growth.

Let us not be afraid to go out into this free world market, produce goods for it wherever they can be most efficiently produced and vigorously sell it. Reorganization for global operations must become an increasingly important part of every company's planning. I understand some large companies are planning to merge their international and domestic divisions and operate on a world-wide integrated basis.

Meet the Needs

The next thing we can do is design our products to meet the specific needs of people in various

world areas. That is my second suggestion. The time has long since passed when we can say in overseas markets, "If the product is good enough for the U.S.A., it is certainly good enough for you."

People in various nations have different needs and desires in products. For example, in Great Britain, my company had to design a vinyl plastic conveyor belt to meet the requirements of British coal mines for belting that was flame resistant.

In Italy they have their own styles in footwear. It is interesting to note that some of these Italian shoe styles have caught on in the United States.

One American company learned a lesson in local customs when it tried to sell standard American refrigerators to the French. While its sales lagged, a European competitor cleaned up with a line of refrigerators with one-half to one-quarter the capacity of the American type.

The reason was that the French housewife seldom buys more than a single day's supply of food at a time. She doesn't belong to a bridge club, the PTA, women's club or golf club. Her social life is limited largely to her daily shopping trip. She wouldn't think of buying more than 24 hours ahead.

Improve Position

My third suggestion to improve our position in free world markets is to realize that when we start to do business in another country, we are actually becoming a part of the economy of that country. We should take part as corporate citizens of that nation and join in its society and its customs.

I have always felt that the best ambassador of the U.S.A. is a well behaved businessman operating abroad. As a matter of fact, we now have the Business Council for International Understanding which is working closely with the President and the State Department in precisely this field. And B.C.I.U. has established at American University in Washington a school to train men who will be operating abroad.

The American businessman abroad should avoid the attitude of exuding good will. He should put his operations on a sound business basis within the economy and cus-

toms of the local community. He should hire its people and attend to their well being in terms of the best business practice in that area. He should do this if for no other reason than that these people are also his potential customers.

Know-How Needed

Next — and fourth — we should realize that the greatest need overseas is not American technical know-how but our management and marketing know-how.

One of U.S. Rubber's European subsidiaries readily absorbed our technical experience and even our accounting procedures. But they could see no real value at first in our forecasting methods, our salary administration, our management development, our cost analysis methods and our distribution methods.

We tell our managements abroad that to stay competitive we must use the modern methods (not necessarily American methods) which other European companies, particularly those with U.S.A. affiliation, are now using.

We should not delude ourselves that the United States dominates in technical ability. I doubt that we could teach the Europeans anything in science and they are making rapid progress in modern production methods. In this area, we are coming to the point where we need them as much as they need us.

For example, the French company Ugine has an electro-steel division that many regard as the most technically advanced in the world. Many large American steel companies have licensed their technical know-how.

We should take advantage of opportunities to exchange technical information with our friends abroad. I note that a number of American companies lately have set up laboratories in Europe, have provided financial aid to foreign universities and have set up channels to keep in touch with technical advances world-wide.

Resist Inflation

Suggestion number five — we can strongly resist inflation at home — both wage inflation and government spending inflation. I realize that some economists have recently announced that inflation has been

HUMPHREYS

brought to a standstill. They imply that we are in a new era in which unit costs, prices and the cost of living will remain stable.

I would like to believe this. But I can only observe that this theory runs counter to the whole course of history. I am afraid that inflationary pressures will continue and that we shall have to exert our utmost persuasion and fortitude to keep inflation within bounds.

I am pleased to note that the government is making an earnest effort to hold inflation in check. Also, private groups, notably the Advertising Council, deserve credit for their anti-inflation campaigns.

Meanwhile, let us remember that the Europeans are old hands at inflation, as well as deflation, fiscal controls and currency management. They have been tempered in the hot fires of experience. Unless we continue to keep our guard up, we can work ourselves into an international money crisis, while our European friends might come through virtually unscathed.

My sixth and final suggestion is this: we can encourage our government to help narrow the dollar gap by urging the resurgent free nations abroad to share the burden of foreign aids to the less fortunate ones. This is not my exclusive idea. I have even heard it expressed by my fellow businessmen in free Europe. For one thing, they have an important stake in that they draw vital raw materials from the less favored nations to a larger relative degree than we do.

I have been glad to see that our State Department is encouraging other strong nations to pick up a share of aid to less developed countries. This trend will help the U.S.A. It should improve morale in the nations who share the responsibility. And, most important, it will advance the economic interdependence of the world and the prosperity of all through the greater ability of the less developed nations to trade in world markets.

And, speaking of these less developed nations, we should not overlook the fact that in some cases they offer businessmen much greater future markets than some of the European nations to which we are now giving our major attention. Such countries as India present un-

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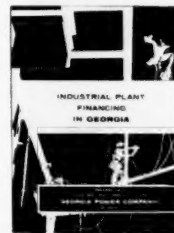
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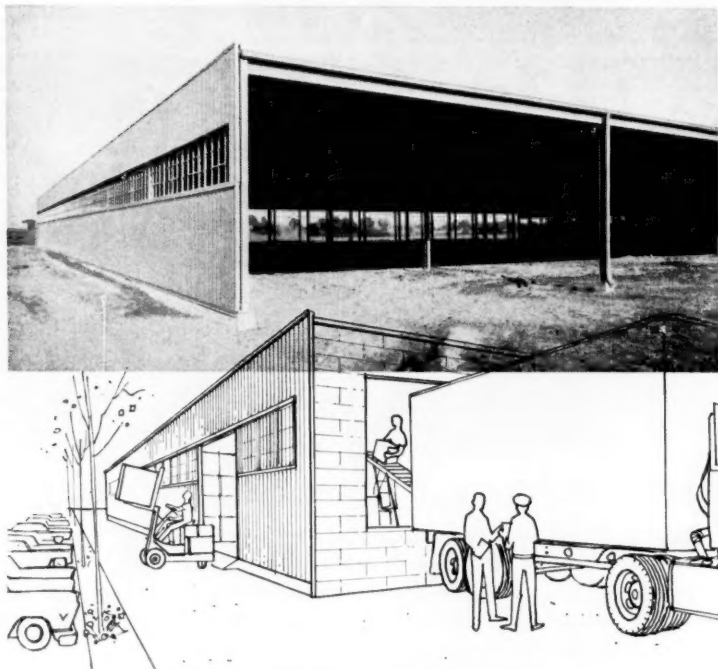
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HUMPHREYS

told opportunities for investment to develop broad new markets of the future.

Those are my six suggestions for ways to take advantage of our new opportunity in trade throughout the free world. If we will pursue this opportunity vigorously, we can produce a number of important results.

We can expect to get back a good return on our investment. Maybe this is result enough in itself. But there are others.

As Americans invest more abroad, they help increase standards of living overseas, which in turn helps equalize labor rates the world over.

As the interchange of goods and services across national borders increases, free nations will be drawn closer together economically. This will tend to unify the thinking of business people world-wide on sound economic policies, which will have its impact on politics in these countries.

This economic and political unity can become the greatest guarantee of peace the world has ever known. Because nations so bound together find it in their own self-interest to form a united defense front.

Other nations, as they develop and shake off their yoke of tradition, will be attracted to this prosperous free world trade area. As it grows, it will become a powerful magnet to draw in Russia, her satellites and Red China. Thus world economic freedom can lay a firm foundation for world peace.

The key to all of this is the course taken by businessmen of the free world during the next few years. We in the U.S.A. must play our part. Ours is the land where free enterprise started. We are the leaders of this economic system which is now rapidly spreading in favor across the globe.

Let us not be afraid to share our system and its benefits with friendly nations. We help ourselves, as well as others, as we work closely with businessmen in other countries. This cooperation might well lead to a free world economic community.

If Horace Greeley were here today, he might well advise us: "Go West, young man; also, go East, and North and South. In short, go global."

The Melpar Concept:

SEEK NEW HORIZONS

By Thomas Meloy

The mushrooming growth of the electronics industry has hit with unusually hard impact in the Washington area, with 60 of the area's 130 R. & D. firms active in the field. Proximity to the Pentagon, which funnels almost a third of its over \$13 billion procurement funds into the electronics industry is one inducement for the rapid expansion of the comparatively young industry in the area. Another advantage in locating near the nation's capitol is the availability of top scientists and engineers who settle willingly into the hub of cultural and political activity and the neighboring communities that offer an attractive environment.

Melpar, which is a subsidiary of Westinghouse Air Brake Company is the largest of the D.C. area electronics firms and one of the country's leaders in the R. & D. field. Melpar's growth in little over a decade and a half has been one of the big success stories of the industry. The company employs close to 6,000 in 10 plants — eight in Northern Virginia, one in Tucson, Arizona, and one in Watertown, Massachusetts. An addition to the Falls Church plant was completed this fall. This brings Melpar's plant facilities to over one million square feet.

Foreseeing the need for special capability in electronics and allied fields, Melpar was started in 1944 in a four-room space in Alexandria — a layout of that "plant" is still on display in President Thomas Meloy's office.

Sale of the company to the Westinghouse Air Brake Company in 1951 was prompted, in part, by a corollary of the firm's decision to remain in government work. "We

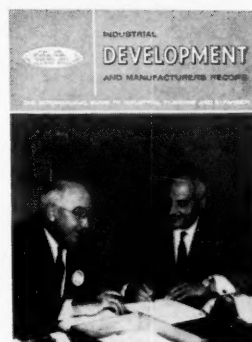
were working on fixed-price contracts," says Meloy, "and at the outbreak of the Korean War, many larger companies moved back into war work, and could and did hire away half of our carefully trained engineering staff.

"Efficiency went down, and this erosion of our manpower could only be answered by a company with larger resources. WABCO proved to be the answer, and it has proved to be profitable on both sides." Melpar has combined a strong forward looking management organization with a clear-cut, logical division of its far-ranging interests, to achieve success.

Recently the organization broadened its base of activities from concentration on defense and government work, to include commercial products. As a result of its wide experience in electronic research and development, Melpar has developed and produced many items and services which have wide applications throughout the electronic industry. These items and services are offered to government and industry through the Special Products Department which has responsibility for development, production and sale of these products.

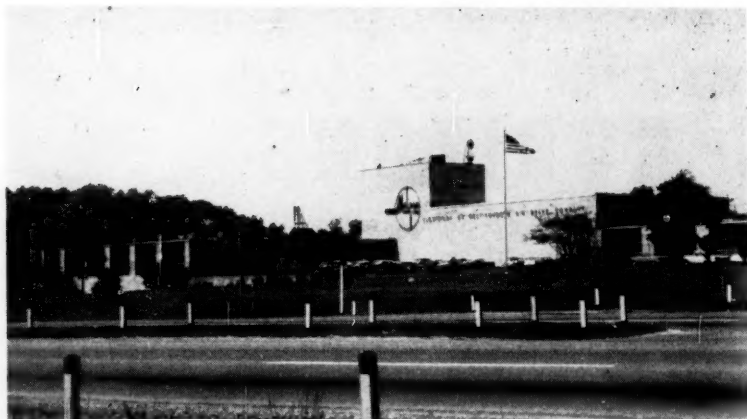
Discussing establishment of the new department, Melpar President Thomas Meloy said, "We can make proven electronic equipment, electro-chemical materials, and specialty services available at appreciable cost savings because the Special Products Department is able to draw heavily upon the experience and capabilities of Melpar's existing Applied Science, Engineering Production and Field Service Divisions."

At the present time the Special Products Department markets a



COVER STORY

With its production in the wide field of electronics, Melpar located originally — and has continued to expand — in the Washington area because the Pentagon is a tremendous market for the goods the company produces. Now, however, Melpar is widening its horizons to other parts of the nation, its growth westward to a plant in Arizona having recently been supplemented with the opening of a West Coast office in Beverly Hills. As President Meloy puts it: "Proudest Melpar boast is that it can react quickly to change and new requirements."



Melpar's Falls Church, Virginia, plant recently was expanded by 120,000 square feet at a cost of \$2.4 million. Completion of this program brought the company's plant facilities to a total of more than a million square feet.



A key operation at Melpar is this physical sciences lab. Work in progress here includes studies on the problem of producing practical, workable designs in such areas as high temperature effect on materials and molecular electronics.

number of products for the electronics industry including electrochemical materials and provides automation devices, printed circuit layout, fabrication and assembly services.

"During the past five years," Mr. Meloy said, "we have expanded our printed circuit facilities. Today, we can fabricate and customize printed circuit boards with the highest quality at low cost." This is largely due to Melpar's proprietary one-to-one process. This one-to-one process makes possible reproduction of the layout without the time-consuming photographic reduction steps, in some cases cutting as much as 80 per cent from the time required using conventional techniques.

Other Melpar products are currently being investigated for inclusion in the company's product line.

In its defense work, the fields of activity have been divided into seven basic areas, each of which flows quite logically into the other: antennas and radiation, communications and navigation, data handling detection and identification, flight simulation and training, the physical sciences, and reconnaissance.

Within each of these areas, the possibilities for pioneering in development and manufacturing techniques have been enormous. But the interrelation and possibilities of multiple use of information and techniques are equally clear.

For example, the company's vast experience in data processing and handling fit very well with efforts to develop systems and devices for detection and identification; early efforts in the development of antennas and radiation devices lead quite naturally into work on communications and navigation. And the necessity of training its own and customer personnel to use the instruments developed lead just as logically to the development of simulators and other training devices.

Management — On the management side, Melpar's organization is a model for the many industries now growing into the highly specialized engineering-manufacturing field.

Principal consideration is the insistence on parallel operation of the scientific and manufacturing processes. It is essential, of course, in areas where manufacturing processes often must await the development of scientific regimens before anything workable results.

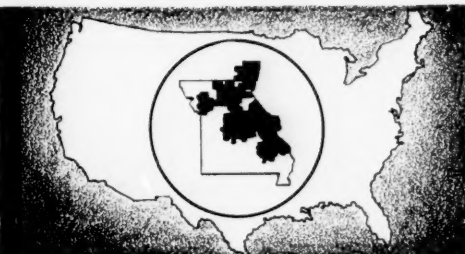
At Melpar, nearly a third of the total employees are engineers, physicists, mathematicians, chemists, and other specialized professionals. Some of them are really "pure scientists" too — 250, for instance, work in the Applied Science Division (at Boston, and Waterbury, Mass.) where research is the only activity, no hardware of any kind is produced.

Working hand in hand with this scientific group — which, of course, includes other specialists assigned to the manufacturing operations — are manufacturing craftsmen of many skills. They're employed in the company's now-expanding plant at Alexandria, and at other plants at Bailey's Cross Roads and Manassas, Virginia, and Tucson, Arizona.

Riding herd on the whole operation is what Melpar likes to call its team of professional managers — in large part the company's original management group — which represents the research, development and business functions. Headed by Edward M. Bostick, executive vice president and general manager, this group includes Arthur C. Weid, vice president for operations; Charles Raybuck, vice president for engineering; Robert S. Butts, chief engineer; H. L. Dudley, supervisor, reliability group; A. M. Maher, super-

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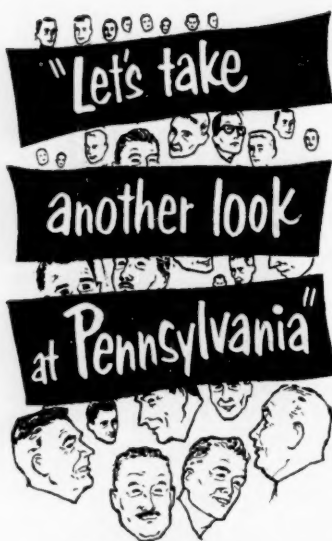
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MELPAR

visor, applied reliability engineering unit; and others.

The management group is charged with establishing rigid performance and measurement criteria at all operating levels, and all of it keyed to the delivery of a total result; including field customer service where necessary or advisable, for the ultimate customer.

And overriding all management considerations is Mr. Meloy's insistence on a "tight" operation — detailed supervision and minute attention to all details of the company's activities.

But within this general outline, individual group and unit managers are given considerable freedom of initiative, and executive backing to all reasonable limits in developing their own systems and methods, and in making decisions within their segments of the organization. Frequent staff conferences, and an informal atmosphere generally makes any member of management available to any other for consultation, advice and decision-making.

Specific examples of the coordination between the various sections in producing a product that is the end-result of simultaneous work and coordination of numerous activities include: The conception design and production of what is said to be the first integrated electromagnetic reconnaissance system ever put together. And an example of the company's ability to follow its work anywhere in the world, anytime, is the fact that Melpar field service personnel are now working in such places as England, France,

Germany, Denmark, Japan, Okinawa, and Morocco.

Proudest Melpar boast is that it can react quickly to change and new requirements, since it owns most of its own equipment (unlike many government contractors who use rented or government supplied machine tools), and has "in house" most of the engineering and production capability, spare parts, training facilities and the like that may be required; and since it insists that its staff remain "fluid" in its thinking, doesn't become "set" in its ideas or its methods.

Products and future — Much of what Melpar works on is highly classified, since it has to do with the nation's military posture, and cannot be discussed in detail.

However, study and research contracts have ranged from Human Engineering to Missile defense techniques; development and production work, from manufacture of ground and airborne beacons to "distributed parameter electronics (microminiaturization)"; its field services from flight simulators to sonar, sound recognition and other complex electronic devices.

Production techniques can be adapted over the full range from producing thousands of parts daily for missile components (the company holds no prime missile contracts but is subcontractor to others), to producing a few van-installed radar systems each month.

Company officials see no end in sight for their activities. Demand will increase for newer, better communications devices — both for war-time and peacetime uses, and Melpar intends to expand with the demand.

Certainly, the field of data processing, handling and interpretation is only now beginning to be understood, and the possible applications are still being explored — they range from relatively simple (but important) surveying and mapping activities, to complex computations for operating a space-ship.

In the field of physical sciences, research staffs are now working on the problem of producing practical, workable designs in such areas as high temperature effect on materials and molecular electronics. Either of these areas, alone, is a vast new field in itself.

MELPAR'S THOMAS MELOY

President Thomas Meloy of Melpar, Inc., has had a highly varied career, including assignments in far flung parts of the world. Both a mechanical and civil engineer, he holds degrees from Harvard, Massachusetts Institute of Technology and the Ecole des Ponts et Chaussées in Paris. His first job was with the New York civil engineering firm of Waddell & Hardesty, and while there he worked on engineering projects in China, Puerto Rico and England. Later, after serving as special assistant to the late Henry L. Stimpson, he and the late Joseph Parks (that, with Meloy, is where the Melpar comes from) set up an engineering consultant firm in New York before Melpar was launched.

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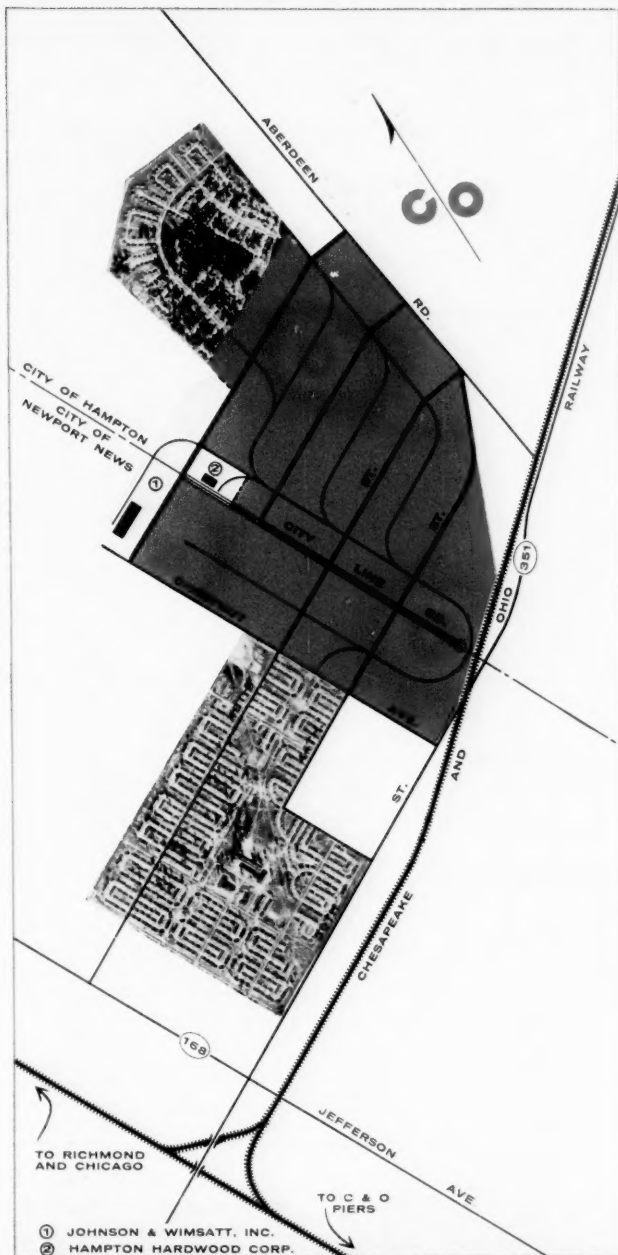
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2—Erie, Michigan—Pick your own site in 913-acre property, all level and well drained, adjoining C&O's Ottawa Yard. Ten miles from downtown Toledo, forty-seven miles from Detroit. Lies between U. S. Highways, 25 and 24. Electricity from Consumers Power Co.; in sight of new generating plant. Water from Lake Erie. Gas not now available. Access to exceptional labor sources.

3—"Chemical Valley," West Virginia —The 43-acre Lewis site, clear and level, thirteen miles from Charleston, the capital. On C&O main line and canalized Kanawha River; close to U. S. Highway 60. High-grade fuel from Middle Appalachian fields. All the water you can use. Utilities: Appalachian Power Company (AEP system); United Fuel Gas Co. (Columbia system); West Virginia Water Co. Ample labor. Other sites near by.

4—Michigan City, Indiana — Two nearly level parcels of 43 acres and 22 acres on C&O's Chicago-Detroit-Buffalo main line. Fifty-eight miles from Chicago loop. Both sites front on State Route 212, a 4-lane road linking U. S. Highways 12 and 20. Now in city: gas, water, sewer, when needed. Power and gas. Northern Indiana Public Service Co. Also adjoining properties.

5—Richmond, Virginia—Choice level sites in the 200-acre Airport Industrial District, five miles from downtown Richmond. Adjacent to Byrd Field, city's airport. All utilities. Lead track to C&O's fast main line, Newport News to Chicago. District is already distribution center for Ford, GM, Allis-Chalmers. Electricity: Virginia Electric and Power Co.

6—Marion, Indiana — C&O invites location in level 369-acre property, zoned for heavy industry, with all utilities available. On main line, Chicago to Cincinnati; reciprocals switching with three other railroads. Close to State Route 18. Dana Corp. and General Motors plants near by. Utilities: Indiana & Michigan Electric Company (AEP system); Central Indiana Gas Co. (Consolidated affiliate).

7—On Ohio River—400-acre-river-front property in Kentucky-West Virginia-Ohio tri-state industrial area. Eight miles west of Ashland, Ky. on U. S. Highway 23. Between river and C&O double track main line, Newport News to Chicago, at west end of Russell Yard. Utilities: Kentucky Power Co. (AEP system); Columbia Gas of Ky. In labor surplus area.

8—Eastern Kentucky — Local group in area of labor surplus holds 60-acre property for industrial use. On Levisa Fork of Big Sandy River and C&O's Ashland-Elkhorn City line. Four miles from Paintsville, county seat city of 5,000, two U. S. highways. Two miles from country club, 18-hole golf course. Electricity: Kentucky Power Co. (AEP system). All utilities can be provided.

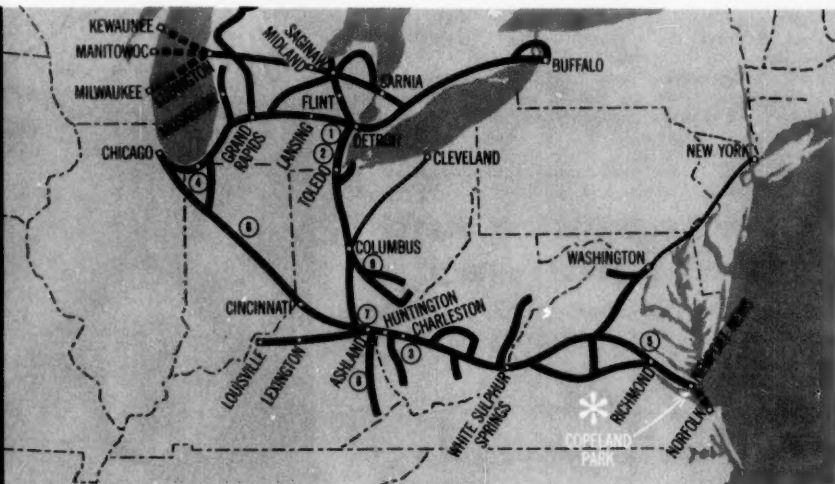
9—Logan, Ohio—A forward looking city of 6,000 in the Hocking Valley, forty-nine miles southeast of Columbus. On C&O line and U. S. Highway 33. Affords several choice sites. Abundant fuel sources; water from Hocking River aquifers. Utilities: Ohio Power Co. (AEP system); The Ohio Fuel Gas Company (Columbia system). Large reservoir of skilled, semiskilled and unskilled labor.

Complete industrial surveys of these and other sites along The Chessie Route are available to interested companies. Inquiries are handled in complete confidence and without obligation. Address: Wayne C. Fletcher, Director of Industrial Development, Chesapeake and Ohio Railway, Huntington, West Virginia. Telephone: JACkson 3-8573.

There's
Opportunity for
Industry all
along The
Chessie Route



*Outstandability
in Transportation*







Ireland and Britain Push

The Chapelcross nuclear power station in Scotland illustrates the atmosphere to be found in many new developments throughout the British Isles today — important industrial and scientific installations set against a backdrop of rural beauty. Many a quiet country lane like this one leads to a site which may interest you.

By H. McKinley Conway, Jr.

LONDON. We didn't need a slide rule to figure that the only way to get our Cessna from New York to London was to put it on a boat. So, in the interest of time, we bought a ticket on Pan American's flight number one, a 707 jaunt on which you eat and drink your way across the North Atlantic in something under six hours.

We've come a long way since Lindbergh. In fact, our crossing was number 83,159 for Pan American and they're only one among many lines on the route. A generation of scurrying business executives is already well aware that London is as quickly reached from New York as any off-airline city in the Midwest.

The pattern is changing and the jet is hurrying the process. That's

why we're here — to look at the factors which are influencing a reversal of the historic course of trade, bringing scores of U.S. firms into the British Isles with new enterprises and investments.

Of course, there's nothing new about major U.S. firms setting up branches here. They've been doing that for decades. But there is very definitely a new trend which is, for the first time, bringing large numbers of middle-sized U.S. firms into the international sphere.

Until recently, most of the firms you saw engaging in international operations were the giants — Ford, Sears Roebuck, General Motors and others big enough to set up their own staff of specialists in handling overseas operations and investments.

But since World War II small and medium-sized companies have begun to get into the act in a big way. Some are managed by ex-servicemen who traveled overseas through the courtesy of Uncle Sam; others are merely shrewd businessmen who have recognized that improved global communications permit new approaches to business expansion.

The result is that today there are a great many more U.S. firms, in actual numbers, interested in international opportunities than ever before. Many of these are the smaller firms which do not have large staffs of specialists and which are happy to receive assistance in exploring new opportunities in foreign areas. It is for this reason that ID

There's a U. S. based firm near Dublin making flower pots for sale in the Southern California market. At Belfast, a Texas firm makes oil-field equipment for markets in Venezuela and the Middle East. Throughout Britain and Ireland, scores of other U. S. and Canadian companies have found sites which enable them to expand their horizons. Here's a factual on-the-scene survey which may help identify a new opportunity for your firm.

Programs For More U. S. Investment

has undertaken a series of surveys of overseas regions, beginning with this report on the British Isles.

Actually, we hesitate to call Britain a "foreign" country, because the average U.S. citizen feels so much at home here. A brief visit serves more to emphasize the many basic things we have in common, than to bring out superficial differences which are always interesting and often amusing. Even these are not at all surprising to habitual viewers of the TV late movies.

Certainly from the viewpoint of industrial development you will not feel ill-at-ease here. There is intense interest in the location of new enterprises and there are strong and alert organizations eager to make you feel at home. While such

groups may not be as numerous or as large as in the states you will find many units which compare in quality with the best in the U.S.

One of our first stops was at the Board of Trade located on picturesque Horse Guards Avenue. In the Industry and Manufacturers Department we found a section devoted to "Inward Investment." Here we were told by C.A.F. Buyman that U.S. firms interested in investing in the UK would find a "very big welcome."

One of the first items we received was an official statement from the Board of Trade which reminded us that "The United Kingdom is one of the great capital-exploiting countries of the world and, as such, is familiar with the prob-

lems of overseas investment. Those who invest in the United Kingdom can be assured of generous treatment. Formalities associated with the establishment of new business in Britain have been reduced to a minimum. No obstacles are put in the way of repatriation of capital, capital gains or profits."

The Board of Trade staff explains that the U.K. offers North American investors some very special attractions. Of course there is a long tradition of stable government here. Moreover, the language and the system of weights and measures are essentially the same; thus the vital problem of communication and the problems of management and transfer of technical information are greatly simplified.

BRITISH ISLES

In view of the attractions here it is a fact that by the end of 1958 U.S. businessmen had invested more than \$2,000 million in the United Kingdom — a little less than half the total investment by U.S. firms in all of Western Europe, according to an estimate made by the U.S. Department of Commerce. Moreover, between 1950 and 1959 more than 800 investment proposals from Canadian and U.S. manufacturers were approved by the government here. It is obvious that should you pursue an expansion program here you will be in excellent company.

In exploring opportunities here and in checking plant location factors you will undoubtedly find that a great many factors operate the same way here that they do in the states. However, there are some notable exceptions and these are the things that must be studied with special care.

For example, if you wish to build a new plant anywhere in Great Britain you must obtain an Industrial Development Certificate from the Board of Trade. This is a process by which the government actually controls the distribution of industry and prevents further concentration in congested areas.

To the U.S. businessman, accustomed to locating wherever he finds it economic to do so, this is often a rude surprise. But it is a policy on which the great majority of Britains are agreed and for sound reasons.

In case you are irked by this process you should remember that the density of population here is about 550 to the square mile compared with 55 to the square mile in the U.S. Many British firms are seeing the advantage of moving into the less congested areas simply in the interest of their own efficiency and expansion needs.

In general the Industrial Development Certificates are likely to be refused only in places where there is already an excessive concentration of industry, as in London or Birmingham, and they are freely granted in localities where there is an abundance of labor.

In certain key areas where industry is particularly desired and labor is plentiful, special assistance can be given by the government in setting up firms there. The government can build factories either to

rent or for purchase on deferred payment terms at favorable rates. Those who prefer to build their own plant can apply for a government grant to cover part of the cost. Recent legislation allows the government to help in certain areas with loans to cover working capital, plant and equipment, and some of the capital expenses involved in setting up.

Aid In Labor Recruitment

To determine the availability of manpower you will find the same type of assistance here to which you are accustomed in the states. The Ministry of Labor and the local education authorities operate a free nationwide employment service covering all grades of staff, from professionally trained scientists through the managerial and executive grades. There is an employment exchange and a youth employment office in every town and the local officials will give you all possible help in meeting your requirements.

Under the British system of industrial relations, free collective bargaining between employers or their organizations and trade unions is recognized as a method for settlement of terms and conditions of employment for about 60 percent of the workers. In the great majority of cases basic wage rates and other conditions are negotiated nationally — that is, for an industry as a whole.

For industries for which there is no adequate machinery for collective bargaining there is a system of statutory regulation wages. Under this system orders are laid fixing the union wages for each industry concerned. The orders are legally enforceable and there are special government inspectors who are charged with the duty of enforcement. Approximately 20 percent of workers are subject to statutory minimum wage regulations.

As in the States, take-home pay varies according to regions and industries. Overtime is usually time and a half; tax deduction at source is common. Basic hours are generally longer than in the U.S., averaging from 40 to 45 hours a week. In April, 1959, the average weekly wage in manufacturing was \$38.05.

Nearly everyone who works for an employer in the U.K. is compulsorily insured under national insurance and industrial injuries plans which provide cash benefits for sickness, unemployment, maternity, loss of husband or parents, retirement and death, and for industrial injury and disablement.

The employer and the employee both contribute. The employer pays a combined weekly contribution for each employee and it covers the employee's share by deduction from wages.

The rate of contribution in 1959 for an employed man aged 18 and over for each week was \$2.55 of which the employer's share was \$1.16. For a woman 18 or over it was \$2.07 of which the employer's share was 95 cents.

Apart from the benefits indicated above, employers generally provide a minimum of two weeks paid holiday in addition to five or six public holidays. Most employers provide canteens with subsidized meals and a number have organized company-paid pension and sick pay schemes in addition to those provided by the government. The relative importance of an employer's expenditure on fringe benefits (including contribution to the state national insurance fund) varies between firms but generally involves an addition of some 9 to 13 percent of the total wage bill.

Taxes: Complex Here, Too!

Taxes are complicated everywhere, and the U.K. is no exception. There is a company income tax which is applied to the total income of the subsidiary in the U.K. If operations in the U.K. are conducted through a branch the charge to British tax will be limited to income and profits arising in Britain.

The tax rates are the same as for other companies, British or foreign. For the tax year which ends April 5, 1961, the income tax rate for companies is 38.75 percent and the profits tax which is charged in addition to income tax is 12½ percent.

There is a comprehensive system of tax deductible allowances for capital expenditure incurred in a trade or business. This system is favorable to new investment and in most cases makes it possible to

Birth of an idea...

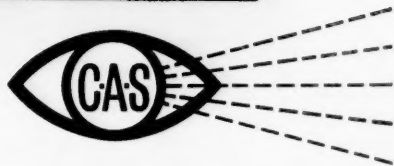
An industrial development—particularly one in a foreign country—calls for vision and imagination.

C.A.S.—a British Group of Companies specialising in Industrial Development—have introduced into the U.K. a “packaged deal” for Industrialists.

Basically the argument is this: doesn't it make more sense to have one highly specialised body—a Developer—than to rely on four or five Consultants, a main Contractor, twenty or thirty Sub-Contractors and twenty or thirty different suppliers?

Leading Industrialists such as Dunlop, Cyanamid and S.P.D. (Unilever) have employed C.A.S. to promote major projects.

C.A.S. find sites . . . offer an Industrial Development Consultancy Service . . . design industrial buildings . . . erect them . . . lease them to the Industrialist on completion, usually for a lease of 99 years and always at an economic rental.



Full information about the C.A.S. system may be obtained from: The Managing Director,

C.A.S. (INDUSTRIAL DEVELOPMENT) LIMITED

St. James' House, Kensington Square, London, W.8. Telephone: WESTern 8060.



I. D. SPECIALISTS EAGER TO SERVE

Typical of the development specialists who will roll out the red carpet for you in Britain — and supply you with factual information and professional services — are John Ferguson, former Scottish Council official now heading the development services of the American Chamber of Commerce in London (upper left); E. G. W. Allen, Director of the Lancashire and Merseyside Industrial Development Assn. (upper middle); Chairman G. A. Rose, of the Northeast industrial development group (upper right); Messrs. Brown and Buysman of the Board of Trade (lower left); and Gerald Ritson, the executive head of the program for Wales (lower right).

write off new capital expenditure over a relatively short period of time.

Local taxes here are called "rates" and of course they vary from place to place. On industrial properties the assessments vary in different parts of the country depending on how eager the areas are to attract industry. For example the rating is at 50 percent of the net value in England, Scotland and Wales and 25 percent in Northern Ireland.

Comparison of building costs is hazardous anywhere. However, some rough measures may be of value. In the U.K. a standard-type single story plant with 12 to 14 feet of head room can be built ready for occupancy with full services of electricity, gas and water for about \$7 to \$8 per square foot. A simple prefabricated concrete building can be constructed for \$2.80 per square foot. Naturally the price of land varies greatly according to the location.

So much for the red tape and statistics. You have gotten over the hurdles of your initial contacts here. You have determined in general what regulations must be met. Now you are ready to go out and take a look at some of the areas that are eager to lure your new plant and meet some of the enthusiastic people who want to tell you why you

should locate in one part of Britain or Ireland.

One of our first contacts was Gerald F. Ritson who is the chief executive of the Development Corporation for Wales, with headquarters in Cardiff. Ritson graduated from Cambridge, became a lawyer and went into the family shipping business before turning to the development field. He came to Wales in 1953 when the organization there was founded.

This is an organization very much along the lines of the development groups in the U.S., financed entirely by contributions from industry. Moreover there is heavy emphasis on selling and Ritson has made six different sale trips to the United States. About half of his effort is put into attracting U.S. investment.

And it has been a very successful program. Already operating in Wales are such U.S. firms as Monsanto Chemicals, Minnesota Mining and Manufacturing, Revlon, Dow Chemical, Goodrich Chemical, Chicago Pneumatic Tool, Miles Laboratories, and American Optical.

According to U.S. Vice-Consul Stanley P. Harris, in Cardiff, a survey of American investment in Wales reveals at least 32 firms occupying 42 separate manufacturing plants have strong American affiliations. The majority of these firms

have been established in Wales since 1945.

In 1950 there were only 18 firms in Wales with American connections. The number of employees has risen from about 7800 in 1950 to over 13,000 at the end of 1959. Fourteen other firms either were established or taken over by American companies during this period bringing the total employees to over 18,500 by the end of 1959. These firms produce a wide range of products including pipes, aluminum, machinery, chemicals, petroleum products, pharmaceuticals, abrasives, cosmetics, synthetics, and electrical goods.

Another of our early contacts was Alderman G. A. Rose who is chairman of the Northeastern Industrial Development Association with headquarters at Newcastle-upon-Tyne. This organization is interested in the development of the counties of Durham, Northumberland, and "the North Riding of Yorkshire." It is an independent body supported by the local authorities and by industrial firms.

One of the key developments here is the Gateshead Trading Estate which was opened in 1936. There are six smaller industrial estates in Durham and Northumberland. Rose anticipates within the next 5 to 10 years American firms will constitute some of his best

prospects.

Another active group is the Tees-Side Industrial Development Board located at Thornaby-on-Tees and having as executive secretary Mr. A. Stockwell. This group, like many similar groups in the United States has published literature regarding the advantages of location in its area and is ready to roll out the red carpet for any firm which wishes to make an on-the-spot investigation.

Still another spot where there is an active development program is the City of Plymouth. This historic city on the Southeast coast has a program headed by W. K. Shepherd who happened to be on a sales mission to the United States during the trip to England of ID's Editor.

Heavily damaged by bombings during World War II, Plymouth today is an example of outstanding reconstruction. It is also one of England's largest cities with a population of more than 250,000.

The Board of Trade has declared Plymouth an area in which you may receive government assistance under the Industrial Finance Act and if you are considering a branch plant here you will receive a number of advantages. In addition, the local development organization will assist you in finding a good site, suitable labor, housing, and good working conditions in holiday surroundings.

The Birmingham area, which is approximately in the center of England and popularly called the Midlands, is one of the heavily industrialized sections which has suffered from congestion and which today is concerned with distributing industry into the outlying areas. There has been planned a system of new roads that will circle the city of Birmingham and which will have great impact on industrial location in the area.

An interesting development which appeals particularly to the small and medium sized firms (10 to 50 employees) is the establishment of "flatted" factories — buildings in which more than one company is located and where there are common facilities for receiving and dispatching goods.

Because Britain is so compact it is possible to cover a lot of bases industrial development-wise with-

out leaving London. Any of the enterprising developers from the immediate area will be happy to stop by your hotel room to tell you what they have to offer. In the period of a day or so you can gather background on a large part of the country and meet many helpful people.

However, no one suggests that you can get a true "feel" without getting out to the medium size and smaller cities. Certainly I.D.'s survey would have been incomplete

without devoting some attention to the key cities throughout England, Scotland, Northern Ireland, and Ireland.

Your editor's first stop, reached by BEA Airlines, was Manchester which is the headquarters of the Lancashire and Merseyside Industrial Development Association. Here we were given excellent cooperation by E. G. W. Allen, Director, who is a professional developer in the best sense of the word.

We spent one working day as

WALES



- Wales is the major steel producing area of the British Isles.
- It is also one of the most attractive locations for Industrial development.
- The success stories of the 400 or more industries which have been established in Wales in the post-war period are ample evidence of this.
- Admirable sites with all main services, and some vacant factory buildings, at favourable rentals, are available now.
- Magnificent opportunities exist for new industry, and government assistance is obtainable in certain areas.

FULL INFORMATION WILL BE SUPPLIED BY:

Gerald S. F. Ritson, T.D.,
The Chief Executive,
THE DEVELOPMENT CORPORATION FOR WALES,
15, PARK PLACE, CARDIFF. Telephone 21200.
GREAT BRITAIN.

BRITISH ISLES

well as a most pleasant weekend exploring activities around Manchester and Liverpool, examining industrial estates, and generally soaking up the atmosphere of the English countryside. We learned right away that Manchester, for example, has been the scene of an outstanding innovation in industrial development. This is the deliberate destruction of the old textile mills in a bold effort to gain a stronger competitive position.

On March 31, 1960 some 300 mills were closed under the government cotton reorganization scheme. Stated briefly, this scheme provided for government payment to those mills which would take obsolete equipment out of service. In actual fact the sledge hammer was put to obsolete equipment to guarantee it would be taken out of use.

Meanwhile, the region has made excellent progress in industrial expansion and diversification. During the first four months of 1960, some 11.7 million square feet of new buildings and extensions were approved by the Board of Trade for this area. This is equivalent to 34 percent of the total floor area of plant buildings approved in the whole of Great Britain during this period.

This impressive showing is the result to a considerable extent of four very large plants to be built by leading motorcar manufacturers — Vauxhall Motors, Ltd.; Ford Motor Company, Ltd.; Standard-Triumph International Company, Ltd.; and the British Motor Corporation. These major enterprises were attracted by the availability of labor and by other locational advantages and certainly will do much to underscore the importance of Lancashire and Merseyside in the industrial development field.

This is by no means the only development which is occurring in this section. Here you will find such well-known U.S. names as Otis Elevator, H. J. Heinz, Kraft Foods, Nash-Kelvinator, Kellogg, Proctor and Gamble, and Carborundum.

The Manchester area certainly is an excellent place to begin an inspection tour of the numerous industrial estates which are to be found throughout England, Scotland and Ireland. Here in Manchester is found Trafford Park

which is said to be the first and largest of all industrial estates. It is directly related to the Manchester Ship Canal which links Manchester with Liverpool and the outside world. The canal was completed in 1894 and Trafford Park Estates Limited was organized in 1896.

Today Trafford Park is an industrial estate of some 1200 acres adjoining the Manchester docks and the ship canal and has a network of railroads connected with the docks and with the main line railways. Private siding connections serve about 130 modern plants. Altogether, the estate contains more than 200 manufacturing plants, warehouses, and depots, many of which are known over the world for the production of every type of machinery and electrical equipment, chemicals, foodstuffs, and other products. More than 50,000 people work in the estate and they support nearly 200,000 dependents in the Greater Manchester area.

At this point it should be observed that the term "industrial estate" can mean almost anything in Great Britain. Certainly in the case of some of the early estates, this referred simply to an industrial district where a number of plants were concentrated. It did not have the implication of a park-like atmosphere of a college campus with newer developments. On the other hand, many of the recently-developed industrial estates represent the latest in industrial planning techniques and offer the atmosphere of a college campus with beautiful landscaping, ample space, careful restrictions, and off-street parking.

Another expression which ought to be mentioned is "overspill." This refers to the expansion of a city which often occurs here in unique fashion. If a city is completely developed to its limits it is not uncommon for the city government to go out in the country a few miles away and literally purchase new land for a complete development of homes, shops, and factories. In actual fact, the municipality becomes a land development organization right down to the promotion of industrial development in the new "overspill" area.

Something else you will find in Great Britain is that commuting

radius for the average factory worker is much smaller here because workers do not own automobiles to the same degree that they do in the States. Most workers commute by public transportation. In the industrial areas it is not uncommon to see sheds which provide for parking bicycles or motor scooters. While exact mileages undoubtedly vary from one community to another, it is probably safe to say that there is little commuting here beyond the 10 mile radius whereas for a major plant in the states it is often found that numerous workers will commute from beyond the 30 or 40 mile range.

Vacant Industrial Buildings

If you should be interested in using some of the old textile mill properties you will find that they are available at a very low cost. Properties shown to I.D.'s editor were listed for sale at less than 15 cents per square foot and for rent at about 13 cents a square foot. It should be borne in mind, however, that many of these properties are much older than the old textile mill properties available in the New England states. In some of them, the bricks are so old that they cannot be sold even as used brick.

Near Liverpool, we visited the Kirkby Estate which is owned by the City of Liverpool. This planned industrial area includes very modern plants of Kraft, A. C. Delco, and Otis Elevator, all in a row.

Also in the Liverpool area a visit was made to the Speke Industrial Estate near the airport. Here there was an opportunity to inspect an "advance factory" which is equivalent to a "speculative building" in the U.S. Several such plants have been and are being built by the Board of Trade so as to have a modern facility ready at all times for industries interested in locating in Britain.

The plant inspected by I.D.'s editor seemed to conform nicely with the best ideas of speculative construction to be encountered anywhere. It was understood that the facility could be rented at about 50 cents per square foot to a tenant acceptable to the government. The government seeks to attract a firm which will employ about 6 workers

per 1000 square feet but will accept 5.

Incidentally, a plant expansion here is called an "extension." And if you see a sign which advertises "demolition contractor" that's a junkyard.

On To Scotland!

In Glasgow we had an interesting session with W. S. Robertson who is the chief executive officer of the Scottish Council, a development organization concerned with the whole of Scotland. Robertson told us briefly about the selective development program the Council has evolved during its 30 years of operation and stressed the fact that this is a professional organization with some 20 different technical specialists on the staff. This group, which is available to assist you with your plant location studies in Scotland, includes economists and engineers with special background in electrical, chemical and metallurgical fields.

In a number of cases, the Scottish Council staff has conducted feasibility studies for prospective industries including detailed cost

analyses. They also have an aggressive sales organization and at the time of our visit they had people traveling in the Eastern part of the United States calling on sheet metal industries and another man visiting electronics firms between Los Angeles and Seattle.

This scientific approach coupled with an aggressive sales effort has brought many U.S. firms to Scotland. In fact, about two-thirds of the new U.S. plants located in the United Kingdom since World War II have been situated in Scotland.

As an experiment, the Scottish Council took a copy of I.D.'s Registered Community Audit form and produced information similar to that which is used in surveying communities in the United States. There were very few portions of the form which caused any difficulty and the data is available to interested readers.

Most of our time in Scotland was spent touring industrial estates and new town developments with J. R. M. Cockburn as our guide and host. Cockburn is the assistant general manager of the Industrial Estates Management Corporation for Scot-

land which is the new name for the organization previously known as Scottish Industrial Estates. I.E.M.C. today manages some 23 industrial estates many of which are huge multi-million-dollar ventures. Certainly it is one of the larger industrial real estate operations anywhere.

Between Glasgow and Edinburgh we visited several impressive estates. In one of them we lunched with C. H. Offord who is the plant manager for Honeywell Controls Limited, an affiliate of Minneapolis-Honeywell. A tour of this plant was very little different from a tour of any modern plant in the U.S. except that tea carts were being prepared for the afternoon break.

Another U.S. executive we encountered in our tour of the estates was P. K. Hoglund, a Princeton man from Cleveland, who is the manager of the big Euclid plant which manufactures earth-moving equipment. Hoglund is the only American in the plant and he is getting along beautifully. He says there is no communications problem and, in fact, the plant is not or-

American companies prosper in Lancashire & Merseyside



Near Liverpool, three major American companies have adjoining plants. Seen here are, in the foreground, Kraft Foods with Otis Elevators and General Motors beyond.

Opportunities abound in this heart of industrial Britain for those wishing to set up new business and the Association offers willing, constructive help to interested industrialists. Confidential informed advice is freely given. The Association hopes there will be no hesitation in making use of its facilities.

Mr. H. J. Heinz II, Chairman of the world famous food processing company, expresses his confidence in this region and typifies the growing number of American industrialists whose expansion plans in Lancashire and Merseyside have prospered.

"Events have proved our company fully justified in deciding to build our new factory in Lancashire. We have found labour willing, adaptable and hard-working, and the local authorities have provided real and valuable co-operation."

Signed,



For details and literature write to:

E. G. W. ALLEN
Director

LANCASHIRE & MERSEYSIDE INDUSTRIAL DEVELOPMENT ASSOCIATION

QUEEN'S HOUSE, QUEEN STREET, MANCHESTER, 2
ENGLAND

Telephone: Blackfriars 6778

BRITISH ISLES



Ronald Cockburn of the Industrial Estates Management Corporation (left) compares notes with P. K. Hoglund (right) manager of the big Euclid plant in Scotland.



W. S. Robertson, Secretary of the Scottish Council, poses for ID's camera on the public square in Glasgow.

ganized "due mainly to good management — not high wages." He says the company has a selective hiring program and obtains most of its personnel within the radius of 7 miles.

The Euclid products made here go into 59 different countries including India, Australia, and Canada. Moreover Hoglund says he ships to Canada and can deliver the product in Toronto 10 percent lower than it can be delivered from the company's Cleveland plant.

As in other parts of Britain, one of the most interesting developments in this region is the "new town." Among those created from scratch since the war, using government funds, are Glen Rothes in the eastern sector; Cumbernauld, northeast of Glasgow; and East Kilbride, about 8 miles south of Glasgow. Each of these new towns includes well-planned industrial areas which

have already attracted important U.S. firms. At Glen Rothes there are plants of Beckman and Hughes; at Cumbernauld there is a new Burroughs plant; and at East Kilbride there is a Sunbeam installation. I.D.'s editor took a quick tour of Kilbride and was very much impressed with what he saw.

Incidentally the cost of some of the basic materials in this region may be of interest. Heavy fuel oil runs from about 13 to 14 cents per gallon when delivered by rail tank car or tank barge. Gas ranges from about 16 to about 35 cents per therm (100,000 BTU's). Electric energy is delivered at rates varying from about 1.25 cents to about 2.3 cents per unit.

Northern Ireland Program

Jumping across the north channel of the Irish Sea from Glasgow to Belfast, we next continued our survey with a visit to Northern

Ireland. While Northern Ireland is certainly a part of the U.K., it functions more as a state, having its own parliament and local government which looks after industrial development programs.

Northern Ireland thus is not bound completely by Board of Trade rulings in London, but certainly the programs have their effect here. For the purpose of plant location, all of Northern Ireland is considered as an open area and you will certainly be welcome anywhere.

There is a Northern Ireland Development Council in the Ministry of Commerce, with a seven-member board appointed by the government. This is another spot where you will find substantial U.S. investment and a strong desire for more. The N.I.D.C. keeps a man in New York to contact site-seeking executives in the states.



In an industrial estate near Belfast, North Ireland development chief, R. Jones (right) chats with William M. Edwards, Texan who manages the branch plant of Camco, Ltd.



T. R. Weeks manages the modern plant of Universities Press, which utilizes low-cost labor to set complex scientific material for U.S. publishers.



Another oil-field equipment firm in the Belfast area is Mission Manufacturing, of Houston. Here Assistant to the President R. H. Anschutz (left), from Houston, visits with the plant manager, P. K. Laster, a Georgia Tech graduate.

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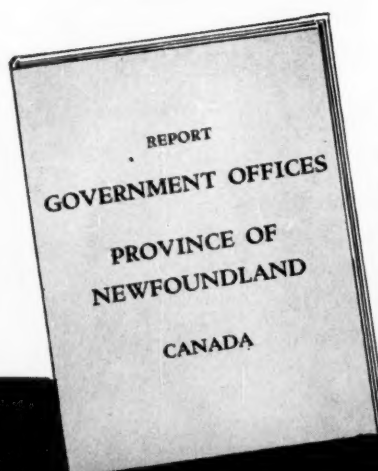


15,000 sq. ft. office building of National Magazine Service Inc., affiliate of Curtis Circulation Company, distributors of Time, Life, Saturday Evening Post, etc.

Shown on the following 2 pages is the 385,000 sq. ft. office building of the government of Newfoundland designed, built and financed by hanson & hanson inc. Contrasted with the 15,000 sq. ft. building illustrated above, it demonstrates the wide range of projects planned and built by our organization.



New Confederation Building To Be Completed



This comprehensive report described in detail how 16 Departments, 103 Divisions, 10 Associated Boards, formerly located in 30 different places, could be centralized in one Capitol Building.

The Government of the Province of Newfoundland engaged Whitney-Hanson, Ltd., our Canadian affiliate, to make a thorough analysis of the Government requirements for a new Central Office Building which was urgently needed. Whitney-Hanson, Ltd. prepared a comprehensive Report in book form (shown on this page) which included the exact requirements for each department of Government, costs of construction and methods of financing.



DESIGN • CONSTRUCTION • FINANCE



Province of Newfoundland and Ready for 1960 Occupancy

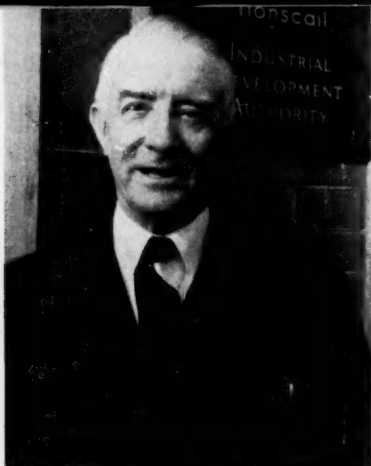
hanson & hanson inc. then proceeded to design, build and finance this project in accordance with the Report which had been submitted to and approved by the Province of Newfoundland.

Our permanent staff is supplemented as projects may require by local architects, engineers and consultants in technical specialties including financial advisors, insurance underwriting specialists and others.

Projects originated by Bankers, Realtors, Industrialists, Architects, Chambers of Commerce, Government Boards, etc. are referred to us. Our services are available for City, County, State, Province and private industrial and commercial enterprises throughout the United States, Canada and other foreign countries.

Brochure on Request





SURE, AND IRELAND'S BUSY, TOO!



Key men in promoting the development of Ireland include Dr. J. P. Beddy, (upper left) who is chairman of the Industrial Development Authority; Authority members J. J. Walsh and Cathal Loughney (upper middle); Shannon officials Brendon O'Regan (upper right); John C. Lynch (lower left); and Thomas A. Callanan (lower right).

Steered by R. Jones, N.I.D.C. secretary, we visited several industrial estates near Belfast. One of our first stops was a very modern plant occupied by Universities Press, a firm specializing in scientific publications. The manager T. R. Weeks, described the operation which is closely connected with U.S. affiliates.

Universities Press is engaged primarily in type-setting for technical books and scientific journals. The copy is mailed here from the states, the type is set, proofs are pulled, and the reproduction proofs are then airmailed back to the states. In effect, the company's product is skilled labor inherent in hand-setting of complex equations and other difficult-to-compose matter.

According to Weeks, there is a price differential of about 30 percent as compared with U.S. prices for printing scientific material.

Visiting the plant of Mission Manufacturing Company, we bumped into a fellow graduate of Georgia Tech, T. K. Laster, who came here about two years ago to manage the unit being established by a Texas firm engaged in making oil-field

equipment. We expressed astonishment at finding an oil field equipment producer in Great Britain since there is no oil and gas industry in this part of the world. But Laster explained that his firm had lost a substantial part of its sterling market due to currency controls and felt it was essential to get into the sterling area. Moreover, he says "In ten years there will be a lot more exploration activity and drilling in this hemisphere."

Of course, there are other factors involved in selection of the site here for an oil-field equipment firm. Laster points out that the wage scale here is about one-third the level in Houston. Also stressed is the availability of shipping facilities and engineering services.

Another Texan we encountered in an industrial estate near Belfast was William M. Edwards, also from Houston, manager of the Camco plant. Edwards has been here about a year and a half and is enthusiastic about his operation.

Camco manufactures gas lift equipment and oil field production equipment. The plant near Belfast serves all of their market except

the U.S., Canada, and Mexico. Their principal outlet is Venezuela.

According to Edwards, the location factors for Camco's Belfast plant included the desirability of being in the sterling area, the desire to be in an English-speaking country, special inducements such as the availability of an "advance" plant, the labor reservoir and the labor cost, and the political stability of the government. He said Camco had examined possibilities in France, Germany, and Italy before making a decision.

Ireland Welcomes Industry

We received a warm Irish greeting in Dublin from J. J. Walsh, one of the members of the Industrial Development Authority. Quickly we drove across the bustling city to St. Stephens Green where we sat down to a conference with the Chairman, Dr. J. P. Beddy, and another member of the Authority, Cathal Loughney. In a warm and straightforward atmosphere, we received an expert briefing on the objectives of the Irish development program and the advantages offered to U.S. firms.

First it should be made crystal clear that Ireland is an independent

nation and is not to be confused with Northern Ireland or any other portion of Great Britain. There are many U.S. businessmen to whom this distinction is not clear and this is a source of frustration to local officials.

The Irish have their own development program and it is proving to be a substantial success. First of all, there is not any iron-clad restriction on where you can locate here. Government planners certainly would prefer for you to take an interest in one of the underdeveloped areas but they will not give you a flat "no" anywhere in the country.

There are a number of incentives and concessions. A government sponsored lending institution, The Industrial Credit Company, Limited — headed, incidentally, by Dr. Beddy — makes loans, underwrites capital issues, and provides equity capital for industrial and commercial establishments. The government also has the power to guarantee loans made by private banks or other financial institutions.

Tax concessions include exemptions of profits derived from ex-

ports, partial remission of property taxes, and provisions for accelerated depreciation. To encourage industrial development in the less-developed western parts of the country the government makes special grants and provides all the facilities that can, under some conditions, amount to the full cost of the plant site and buildings, one-half the cost of plant and machinery, and the full cost of training workers. It is also possible for the government to allow preferential electric power rates.

In addition to these attractions, there is, of course, the very impressive reservoir of inexpensive labor here. In fact, one of the chief objectives of the development program is to provide employment which will keep the young people at home — just as in rural parts of the United States. Immigration today amounts to some 60,000 citizens per year.

A major factor in the recent industrial success here is the interest of Western Europeans, notably German and French, firms in getting into the Outer Seven market area. Mr. Loughney estimates that

150 to 200 German firms are presently interested in the possibility of locating in Ireland. This has grown to be such a trend that the Irish have a traveling representative in West Germany.

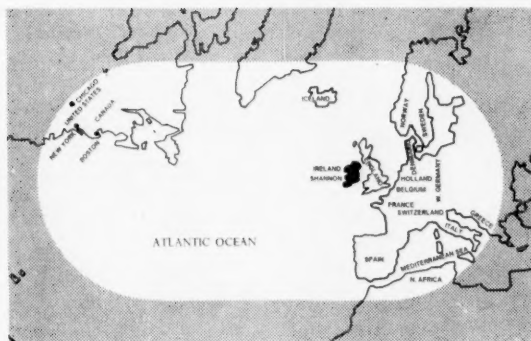
In order to get a first-hand look at one of the more shining examples of development in Ireland we flew to Shannon where we made a quick survey of the free airport development project. This is certainly one of the most noteworthy industrial development undertakings to be found anywhere.

Until the jet airliners came into use, Shannon was a major jumping-off point for transatlantic flights to the United States. Lying several hundred miles West of London it afforded an opportunity for aircraft to fill their fuel tanks and gain a greater margin of safety for the long over-water jump.

However, in recent years the great improvement in the range of commercial aircraft had eliminated the necessity for this fuel stop. Thus the Irish could foresee that Shannon might very well assume a minor role in air commerce unless

SHANNON FREE AIRPORT

GATEWAY TO WORLD TRADE



An invitation toward locating plant facilities in the new industrial area at the Customs-Free Airport at Shannon.

Multiple advantages are:

- Tax exemption on profits until 1983.
- Factory buildings ready-to-occupy or built to specification, to lease on very favorable rental terms
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- Mild climate the year around
- A pool of intelligent, willing workpeople, many of them skilled
- Free grants to cover complete cost of any additional training.

SHANNON FREE AIRPORT DEVELOPMENT CO., LTD.

Shannon Free Airport, Co. Clare, Ireland — J. C. Lynch, Development Manager

BRITISH ISLES

something was done. That "something" has turned out to be an unusual and imaginative industrial development program.

Several years ago the people interested in Shannon decided to establish an industrial park adjacent to the runways and to make their appeal to those firms which might be interested in receiving incoming materials by air and shipping their product out by air. Admittedly this was a bold, new concept and there were many who felt that the project would not succeed.

Today, glancing across the airport, you can see just how far the program has come in just a matter of months. Already located here are plants manufacturing electronics equipment, textile marking ma-

all plan of development for the Shannon area. Integrated with the industrial section is a new residential project which is designed to accommodate some 8,000 to 12,000 people. This is based on an estimate that over a three year span the industrial district will provide some 2,000 new jobs. A further projection indicates that within five years some 4,000 to 5,000 jobs will be created, necessitating a community for 16,000 to 20,000 people. These figures were provided by Thomas A. Callanan, one of the staff officers of the industrial development agency.

In the event you are considering a location here and will plan to send one of your executives to live at Shannon, you might be interested to know that a new home with three to four bedrooms and one bath would cost about \$8,000 U.S. here under present conditions. The housing project will provide some 400 homes for workers, an equal number of apartments, and about 25 single-family residences for executives in the immediate future.

This entire area expects to feel the impact of the progress at Shannon. Among cities in the area are Limerick, Galway, and Ennis. Those familiar with Irish songs and poetry need no introduction to these historic spots.

Incidentally, this area should have a powerful appeal to golfers. There are five courses within 15 miles of Shannon and, in fact, you will find golf is "big" throughout Ireland. It is also much less expensive here than in the States. A golf club membership at a top course is usually less than \$100 per year and may be as low as \$25. It should be pointed out, however, that here a golf club is just that and nothing more.

Flying back to Dublin from Shannon we flew over a good many square miles of peat mining areas as well as many of the big peat ovens. And it was at the little town of Birr in County Offalaly that we learned of one of the more interesting projects here. This is a new plant built by Jack Pot, Limited, which is an off-shoot of the A. L. Reynolds Corporation of Lebanon, Indiana. This firm makes flower pots out of peat for sale to nurserymen. The pots have the obvious ad-

vantage that when seedlings are sold to the housewife she merely puts the pot in the ground and leaves it. We were told that this company can deliver flower pots to the Southern California market from Ireland at 60 percent of the cost of shipping them from Indiana into California.

Where To Get Further Information

In the course of our study of the British Isles, I.D. has identified some 200 different organizations and agencies active in promoting industrial development here. Many of these have very competent professional staffs and can provide the site-seeking firm with authoritative and valuable information and service. Firms interested in learning the identity of groups or individuals serving specific areas are invited to contact I.D.'s editorial office for such information as is available.

Recently, the British have set up a development specialist in New York, Mr. A. Currall, whose duty is to provide data on location facts throughout Britain.

Of course, many firms may wish to consider retaining plant location consultants and there are a number operating in the British Isles. One of these is C.A.S. (Industrial Development) Limited, located in London. This firm, headed by Colin D. Samuels, offers to find sites, design buildings, erect buildings, and lease them. This company also has connections with local development authorities. An example is the cooperative arrangement with the Durham County Council.

According to Samuels, his company philosophy, stated briefly, is: "I make no secret of the fact that it is our ambition to become one of the prime movers in the rehousing of British industry in efficient, economic buildings designed to meet every known need of the industrialist but also capable of meeting the changing requirements of the morrow; we seek to lead in the construction of buildings which will be aesthetically satisfying, economic to maintain and which will add stature to those we have."

P.S. It doesn't take long to get home from Europe. Our jet left the runway at London just as the sun began to set. But, since we were almost keeping up with the earth's rotation, the sunset lasted for some 2,000 miles and finally sank below the horizon over Nova Scotia. We were on the ground at Idlewild a little after dark.



Plant location consultants are active in many areas of the British Isles. Here staff members at C.A.S. (Industrial Developments) Ltd., ponder a site problem under the guidance of Managing Director Colin A. Samuels (right).

chines, chinchilla garments, transistorized radios, pianos and piano components, floor maintenance equipment, textiles, and precision fasteners.

A good example is Standard Pressed Steel Company of Jenkintown, Pennsylvania, which is building a plant here for its new subsidiary S.P.S. International, Limited. The initial project is a 50,000 square foot building with an additional 50,000 square feet to be completed by next March. Initially S.P.S. plans to employ 200 to 250 workers here and this will be increased to 500 when the plant is in full production. A limited number of American personnel will be used for training manufacturing and supervisory personnel.

This is only a portion of an over-

The home of a number of venerable industrial organizations, which in many cases have been in continuous operation for a century or more, Berkshire County today is conducting an aggressive, cooperative program designed to enhance further the things which have all through the years made it an attractive place in which to live and do business.

BERKSHIRE COUNTY

AN AREA SURVEY BY



THE INTERNATIONAL GUIDE TO INDUSTRIAL PLANNING AND EXPANSION

A NEW ENGLAND AREA ENJOYING

The westernmost county in Massachusetts, Berkshire is in the center of and easily accessible to the big market area of the East, offers cultural and recreational advantages which make a unique combination of "liveability" factors, and has a dedicated team of industrial development experts equipped to give you detailed information and personal assistance in any and all phases of site selection and plant location activities.

By Jouett Davenport, Jr.

PITTSFIELD. It was a perfect day in early Autumn, clear and crisp. Our plane swooped down for an easy landing at the Pittsfield Airport, and as we started to disembark our attention was caught by two things: One was the pervading quiet, broken only by the pleasant chatter of crickets in the woodlands around the airstrip; the other was the fact that a large black dog was coming determinedly up the steps into the plane.

The canine, we found, makes a habit of meeting the airliner, as he always gets a handout of food from the stewardess. The crickets are a part of the scenic, verdant countryside in the famous Berkshire Hills of western Massachusetts, and during the course of our visit to this area we were repeatedly impressed at its general beauty.

In addition to touring Pittsfield, we drove literally all over Berkshire county — northward to Adams, North Adams and Williamstown, and southward to Great Barrington and beyond. We learned a lot about what makes Berkshire a year around mecca for tourists, about its great cultural background, and about the many other factors which make the area a particularly attractive one in which to live.

We learned, too, in chatting with representative citizens in various parts of the county, that there is a great new interest in area improvement, a strengthening of civic pride, and a genuine, constructive desire to attract new industrial enterprises into the area.

An unusual aspect of this is that the effort to create a better business climate and to win new plants is being carried out on a county-wide, co-operative basis.

Coordinating the over-all program is the Berkshire County Industrial Development Commission which has headquarters here in Pittsfield. The organizations working with the Commission include the Association of Business & Commerce of Central Berkshire County, Pittsfield; the Northern Berkshire Development Corporation, North Adams, and the Barrington Industrial Corporation, Great Barrington.

Concerning the county-wide program, President William A. Whittlesey, III, of the Central Berkshire organization told us that there has been "marked progress in the cooperative effort, and people all over the county are giving their active support to the program."

AN INDUSTRIAL RENAISSANCE

Shadowing a part of the Pittsfield Country Club's golf course in the background, these graceful birch trees and the rolling countryside in the distance beyond make up a bit of scenery that is typical of the beautiful Berkshire Hills.



BERKSHIRE COUNTY

John Downing, executive director of the Association, echoed that sentiment. He stressed, too, that while the citizenry is backing the efforts to woo new industry, the county's leaders also cooperate fully with existing enterprises and are always willing to help with any problems which might arise.

Discussing activity in Pittsfield, Mr. Downing pointed out that the Association is developing two important industrial and commercial areas here. One tract, served by rail facilities and highway, has 43 acres which have been subdivided into sites suitable for light manufacturing or commercial facilities.

The other tract, zoned for industry and with all necessary services available, has about 130 acres of land.

The ABC also recently acquired an existing multi-storied industrial building and has rented space in it to three different manufacturers. Mr. Downing said the structure has a total of 50,000 square feet of space, and there is room available for a fourth manufacturing enterprise.

Following our chat at the ABC office we dropped in for a visit with Frank A. Strom, president of the Berkshire Housatonic Trust Company. "The people here," he said, "have just during the past couple of years become increasingly aware of the need for diversification of industry in this area and are certainly receptive to the idea of bringing new plants in."

"We have good financial resources here," he continued, "and responsible firms can get the money they need for new or expanded facilities." Mr. Strom added that the recreation and resort business in the county is "very important" and that more emphasis is being put on further development in that category.

Later that day, during a tour of Pittsfield's quaint old city hall, we had a fast interview with Mayor Raymond L. Haughey who was getting ready to attend the dedication of the new Junior College here.

"I think," the eager chief executive said, "that we're definitely on our way toward a significant upsurge in industrial growth and that we'll realize our aim of getting much greater diversification here." The mayor added that the city government has had good relations with existing plants here and is ready to extend full cooperation in helping prospects and in providing the necessary services for new installations.

Venerable Industrial Citizens

Berkshire County's ambitious hopes for the future are bolstered by the fact that the area has long been the home of big and important industrial plants which have grown and prospered through the years.

An outstanding example in Pittsfield is the sprawling operation of General Electric Company which has been a part of the economy here since soon after the turn of the century. GE's installations here include a plant of the Transformer Department; Chemical Materials Department, Chemical & Metallurgical Division, and the Ordnance Department. In its ordnance activities GE operates a Navy plant and produces guidance systems for Polaris missiles. Altogether, GE's Pittsfield installations provide employment currently for 10,600 persons.

Robert Gibson, general manager of the plant, told us that the General Electric operation had been a big factor in attracting technical people to this area and in providing a source of training for many skills.

Pointing to the fact that GE is now in the midst of a \$47 million expansion and improvement program here, Mr. Gibson stressed that the company is "certainly pleased with its location in Pittsfield." He added that he had found the area to be "a delightful place in which to live, with wonderful recreational facilities and friendly people."

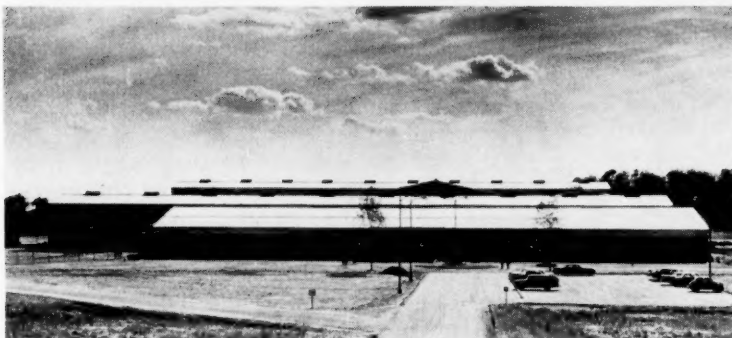
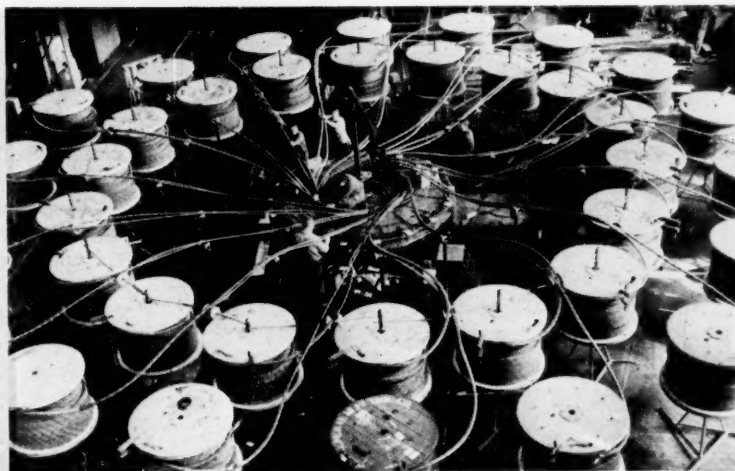
Another plant we visited was that of the venerable Crane & Company which has been in continuous operation at Dalton since 1801. The firm produces high grade rag papers, including tracing and reproduction paper, fine stationery, and distinctive paper for United States currency and bonds.

Bruce Crane, president of the company, told us that Crane had been making most of the paper for U.S. currency for the past 80 years. And, for well over a century the American Bank Note Company, which caters to the engraving needs of many foreign countries and much of U.S. industry, has bought its paper from Crane.

Since its founding the company has been operated by members of the Crane family, and the present chief executive is of the fifth generation in active management of the organization. The founder was Zenas Crane who was born in Canton, Massachusetts in 1777.

Discussing the location of the plant, Mr. Crane noted that it is in the center of the highly concentrated market area of the northeastern United

General Electric Company's sprawling Pittsfield operation, which provides employment for 10,600 persons, has been a part of the Berkshire County industrial scene since right after the turn of the century. This view inside the plant shows the winding of the largest coils for power transformers produced here.



The new plant at Dalton of E. D. Jones Corporation has 200,000 square feet of floor space. It produces machinery for the pulp and paper industry and has some 560 persons working on a three-shift basis. The Jones organization, now a part of Beloit Iron Works, was established in 1845.

States and is close to its supply of raw materials. That was true when the plant was started well over a century and a half ago and remains true today. The operation uses rag cuttings which are obtained from textile sources nearby in the region.

"We use motor freight transportation, as well as rail," Mr. Crane said, "and we have found the service adequate for all our needs. All through the years," he continued, "it has been the company's experience that workers in this area are competent, dependable, and well able to learn the highly specialized skills needed in the production of fine papers. Our rate of turnover is very low, and many of our people spend their entire business careers with Crane."

The company employs approximately 650 persons in the Dalton facility, and the recent acquisition of another company brings the total to about 950, Mr. Crane said.

At the plant of E. D. Jones Corporation, also in Dalton, we chatted with Donald Curtis, assistant to the president, while making a tour of the

big new installation.

Founded in Pittsfield in 1845, the organization produces machinery for the "wet end" of paper making, which is the preparation of stock for the paper machine. It also makes a variety of pulp mill equipment.

In 1958 the company was purchased by The Beloit Iron Works, Beloit, Wisconsin. The latter makes such things as papermaking machines, suction rolls, super-calenders, rewinders, cutters and related equipment for paper board and pulp mills.

Mr. Curtis said the new plant was occupied in February, 1960, and provides employment for 560 persons on three shifts. The structure has 200,000 square feet of space, including 34,000 square feet for offices, and is designed to allow for future expansion up to 640,000 square feet.

"We have found," Mr. Curtis said, "that the workers in this area are easily trained in skills, as well as being dependable and loyal. The vocational school here, incidentally, has been a big help in training people for us." The company uses both truck and rail transportation and has found

BERKSHIRE COUNTY

both to be "very satisfactory."

Commenting on the "liveability" of the area, Mr. Curtis stressed that the Pittsfield and Dalton communities "go all-out to provide the best educational, recreational and cultural facilities. And I like it!"

The Northern Berkshire Area

Activities of the Northern Berkshire Development Corporation cover North Adams, the largest community in the area; North Adams, Williamstown and a few nearby smaller communities.

On our drive through that area we had a long visit with Roger Jewett, executive director of the Development Corporation. He explained that the most significant project under way in North Adams is a \$30 million urban redevelopment program which is scheduled for completion in 1961. It includes a new downtown shopping center, low-rent housing project, flood control project, new highway through the center of the city and new educational facilities.

Of interest to site-seekers is a section of available land, lying midway between Adams and North Adams, which the corporation is developing as an industrial park. The land occupies an area approximately 1,600 feet wide between the line of the Boston & Albany Railroad and the foot of the mountain at the west, and about 3,500 feet long, extending northward from the Adams-North Adams line.

In addition, there are in both cities a number of industrial buildings, former textile mills, with adaptable space totaling hundreds of thousands of square feet in floor space.

One of these buildings, the former Greylock Mills, was purchased by the Development Corporation. Space in the structure has been leased by four diversified companies which currently employ a total of approximately 300 persons.

"This serves as an excellent example," Mr. Jewett said, "of what can be done with that type of building."

From Mr. Jewett's office we strolled over for a chat with Clinton E. Whitney, local merchant who is also president of the N.B.D.C. "Ever since the corporation began its activities here," he said, "the people of the community and this entire area have shown an excellent spirit of cooperation. The merchants, who certainly are interested in seeing new payrolls come into our part of the county, are giving their wholehearted support, and our city officials are ready and willing to cooperate in providing the necessary additional facilities for

service to accommodate new and expanding industry."

A comparable view was expressed by Robert Hardman, business manager of the North Adams *Transcript*. "The people here have the best spirit in years," he declared. "They have been impressed and inspired by the improvements already made since our program got underway, and have seen the good effect that new payrolls have on trade. I think we're really on our way to a lot of significant industrial growth."

We got a close-up of that spirit in the person of youthful, dynamic John W. Bond who is member of a pioneer North Adams family and a leader in real estate activities. He also is a member of the Berkshire County Industrial Development Commission.

His face aglow with enthusiasm, the handsome Mr. Bond declared: "The whole county is organized to tackle the problem of improving the general economic situation and in achieving healthy and orderly industrial growth. Our people are really working together on this."

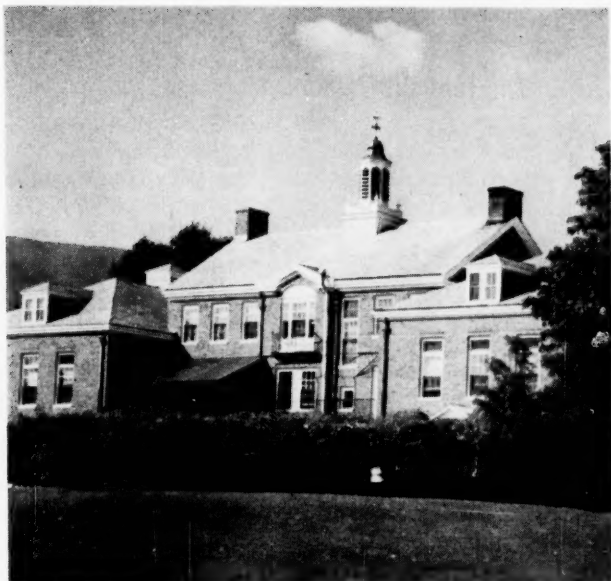
Mr. Bond emphasized, too, that "all of Berkshire County constitutes a center of culture and an area of all-season recreation and fun. We have plenty of good labor, room for expansion, and we are close to such vital market centers as Boston, New York, and others of the industrial Northeast."

From North Adams we continued our drive through the beautiful Berkshire country to Williamstown. This is a community which perhaps can best be described as a typical New England town, in the best sense of the expression.

Stopping in at the historic Town Hall we met J. Maynard Austin, the scholarly and dedicated Town Manager. "We are all set," he told us, "to organize and implement a master plan for development here, and are currently at work tackling such basic problems as improvements in sewerage and waste disposal."

Pointing out that the city is the home of Williams College, the spacious and pleasant campus of which we later visited, Mr. Austin said the community was ideal for the location of research-oriented industry. Important plants here include a facility of Transcopy, Inc., producing photographic papers, and Cornish Wire Company whose products are electric cords and wire.

New here is a regional high school, he added, which cost \$2.25 million and marks an important improvement in the educational facilities of the area.

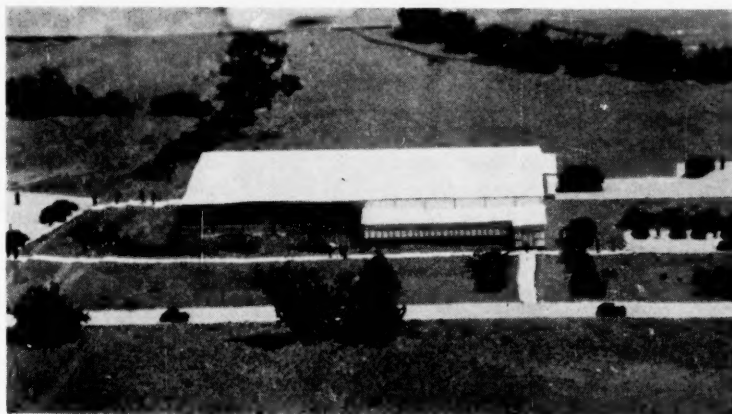


Berkshire County communities currently are making significant strides toward improving their business climates and in providing improved community services. Typical of the facilities provided to help maintain the health of the citizenry is this modern Plunkett Memorial Hospital at Adams.



Historic Williamstown in northern Berkshire is the home of Williams College and a center for culture and gracious living. Thousands of tourists are attracted to the area each year, and the stately Williams Inn is among the attractive places provided to accommodate visitors.

In its constructive moves to attract new industry to the area, the Northern Berkshire Development Corporation plans to erect a plant building on a speculative basis. The structure, an architect's model of which is shown, will have 28,000 square feet of manufacturing space and 4,800 square feet of office space.



Another interesting aspect of Williamstown is that the old fashioned town meetings are still held here, and true democracy on major decisions prevails.

Great Barrington, Alert for Growth

Traveling southward from Pittsfield, over fine roads and through spectacular scenery, we went through Lenox and Stockbridge to Great Barrington, a pleasant town of pretty homes and a bustling atmosphere of activity.

Here we were introduced to A. John Tuller, of the Great Barrington Industrial Corporation, who combines an Ivy League charm and graciousness with a down-to-earth and patently aggressive approach to community development.

Citing recent progress, Mr. Tuller noted that Dresser Products, Inc., which located here in 1956, is now in an important expansion program. In the "exotic metals" field, Dresser does special fabrications, weldments and makes nuclear products.

Another of the newer plants here is that of

BERKSHIRE COUNTY

David Hats Corporation which was started in 1957 and has already undergone two expansions, he said.

Other manufacturing facilities include Great Barrington Manufacturing Company, producers of sheets, pillow cases and related items, and Rising Paper Company, founded in 1900, which makes writing paper. The historic *Berkshire Courier*, founded in 1834, is published in Great Barrington.

"We have made excellent progress during the past five years," Mr. Tuller observed, "and there certainly has been a change in the attitude of the citizenry here toward attracting new industry. Fortunately, we now have a lot of young people among our community leaders, people who are aggressive and progressive and who are willing to pitch in and work to make our program pay off."

Mr. Tuller stressed, too, that "banking facilities in the community have been vastly improved. When it comes to giving direct help in financing new companies or expansions of existing plants, the banks are very cooperative. As a result, we now know where to go and what to do in order to get money for new capital expenditures."

This area also is the home of the American Institute for Economic Research which has its offices in a delightful rural setting. The organization has a staff of about 75 persons. "They came here," Mr. Tuller explained, "because this is really a good place to live, in quiet and peaceful surroundings. Thus they have all the unique advantages offered here while being only a few hours away from many of the nation's biggest cities."

Another important industrial community in southern Berkshire County is Lee. Plants at Lee include those of Forest Manufacturing Company, wood products; Hurlbut Paper Company, founded in 1806, technical papers; Peter J. Schweitzer Division of Kimberly Clark Corporation, founded in 1826, fine papers; Westfield River Paper Company, glassine paper; Western Wire & Steel Corporation, chain link fence and basic steel wire; Clark-Aiken Company, founded in 1828, paper mill machinery, and Lee Lime Corporation, lime.

At Sheffield, just south of Great Barrington, are two firms producing plastics products. They are Custom Extrusion and Sheffield Plastics, Inc., the former having been started in 1957, while the latter has been in operation since 1949.

"All these plants, the new ones and those that have been in the area for many decades," Mr. Tuller said, "are proof of the fact that southern

Berkshire County has had and continues to have an over-all good business climate."

The Industrial Employment Picture

Altogether, according to a recent compilation made by the Berkshire Development Commission, there are more than 100 manufacturing establishments operating in the county, employing from under 10 workers to more than 1,000 and producing — as has already been indicated — a great variety of goods.

Philip C. Ahern, executive director of the Commission, pointed out that in terms of land use, only 2 per cent of the total land area in Berkshire is occupied by industry.

Its importance to the county's economy, however, is established by the fact that manufacturing is the source of employment of 62 per cent of the labor force, and payrolls of manufacturing firms represent 70 per cent of all wages paid to workers in the county.

Latest available figures show, in a breakdown, that as a percentage of the total local employment, workers in manufacturing were distributed as follows: Pittsfield, 54.8 per cent; North Adams, 64.9 per cent; Adams, 69.2 per cent; Williamstown, 46.3 per cent; Dalton, 79.1 per cent; Lee, 62.5 per cent, and Great Barrington, 22 per cent.

Total payroll was well in excess of \$100 million annually, with more than 20,000 persons engaged in manufacturing in the county.

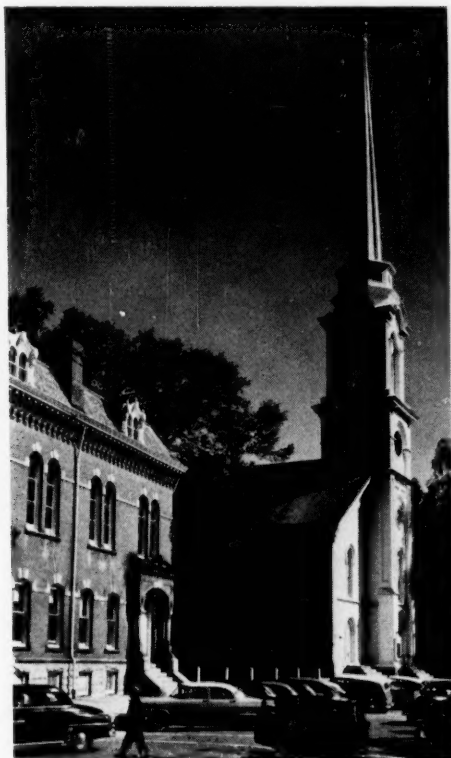
Figures from the Boston office of the Bureau of Labor Statistics show that for Massachusetts as whole, as of mid-year there were 681,700 persons employed in manufacturing.

The gross earnings of production workers in all manufacturing industries of Massachusetts averaged \$83.37 weekly and \$2.10 an hour in July.

The only breakdowns currently available on wage averages in Berkshire County are those for Adams, North Adams and Williamstown, each of which has Audits on file in the International Community Audit Registry.

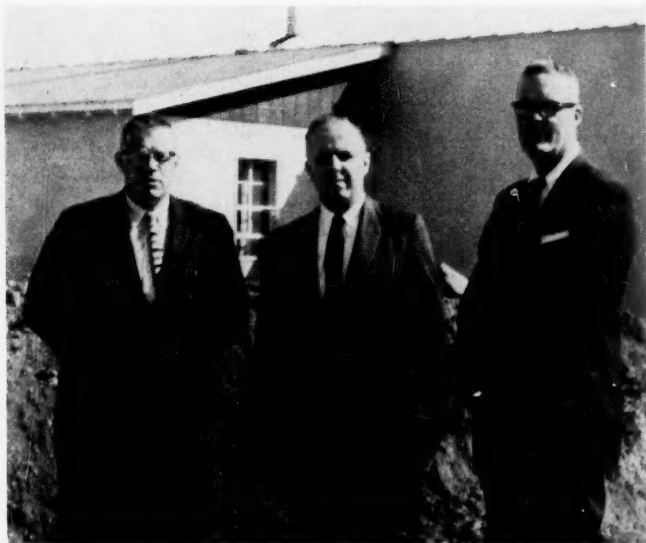
The Audit figures show that for all three cities the prevailing wage scale for skilled workers ranges from \$1.59 to \$2.21 an hour, while those for semi-skilled labor are from \$1.25 to \$1.65, and unskilled, \$1 to \$1.17. This may be regarded, therefore, as a fairly accurate picture for the county as a whole.

Based on the comments of the cross-section of industrialists we interviewed, our impression was that the workers throughout the Berkshire area are adaptable and quick to learn new skills.



Handsome and picturesque structures, characteristic of New England, may be found all over Berkshire. Outstanding examples are the Town Hall and First Congregational Church at Lee in the Southern part of the county.

An important industrial community, Lee has several plants of companies which have been in continuous operation for well over a century. This plant of Hurlbut Paper Company produces technical papers. Hurlbut was founded in 1806.



Among the aggressive leaders in Southern Berkshire are (left to right) William S. Webber, William O. Dresser and John Tuller. Mr. Webber and Mr. Tuller, officers of the Barrington Industrial Corporation, were instrumental in assisting Mr. Dresser to carry out expansions of his plant in Great Barrington. Dresser Products, Inc., was located here in 1956 and is now undergoing its third expansion.



Mr. Crane made the observation, for example, that personnel from farms in the area were particularly good at learning how to work with their hands in manufacturing activities.

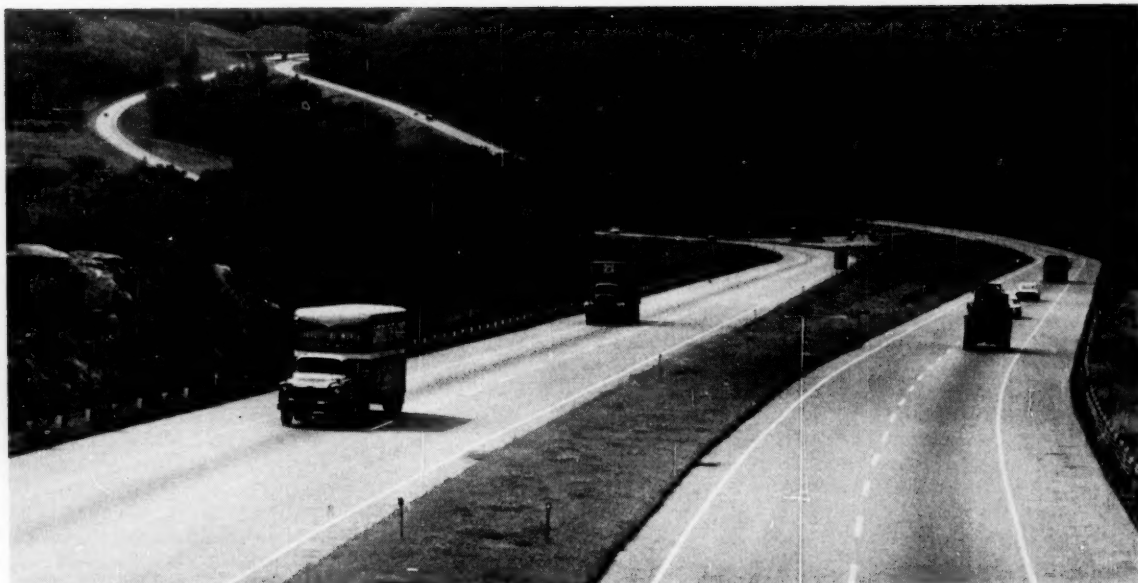
A recent report by Arthur D. Little, Inc., on Berkshire County had this to say about the work picture:

"The opening of the Massachusetts Turnpike should add to the labor supply by providing easier commuting to future industrial locations in the county. The pleasant living conditions in Berk-

shire County will make it relatively easy to retain and attract labor if specific job opportunities are offered."

Population growth, which has not been spectacular but healthily steady, will of course provide an increase of workers in the future. Preliminary figures from the 1960 census show a population of 140,580 in Berkshire County, a gain of 5.7 per cent over the total of 132,966 reported in 1950. A breakdown of the 1960 population figures showed 44,640 in North Berkshire, 79,966 in Central Berk-

BERKSHIRE COUNTY



This is a view near West Stockbridge of the Massachusetts Turnpike which provides quick and easy access from Berkshire County to Boston and other points in the eastern part of the state. The turnpike, opened in 1957, is heavily traveled not only by trucks and busses but also by passenger cars.

shire, and 15,974 in the southern part of the county.

The Center of a Mature Market Area

The highways and rail freight facilities reaching all key areas of the county provide ready access to diversified major markets within 150 miles or less. This includes Boston, and the highly diversified, highly industrialized New England market; New York City, and the bustling Albany-Troy-Schenectady area. A little over 200 miles away are Montreal to the north and Philadelphia to the South, and Buffalo and Baltimore are only about 300 miles distant.

Recent analyses of wholesale sales indicate that the market within 100 miles of the county has grown in volume at a rate substantially more than that for the United States as a whole. This increased wholesale activity reflects increased sales to a broader regional market and an influx of wholesaling activity to service that market.

In addition to this concentrated market area close by, distant points also are served by plants that have long been in operation in the county. Chemical and metal fabricated products, for example, go from here to customers all over the eastern part of the nation.

Textile products from the county receive nation-wide distribution, as do the products of its

paper mills and paper converters. Many paper products also are sent overseas, as in the case of Crane, and specialized machinery made here is shipped distances ranging from the far west to points abroad. Plastic products are distributed nationally as well as into Canada.

Transportation in Berkshire County

The movement of manufactured goods from Berkshire plants to near and distant markets is facilitated by the network of highways, direct service of three railroads, and by the nearby port at Albany, N. Y.

Recently improved major highways serving the county provide adequate facilities for trucking, and many of the plants here depend almost entirely upon trucks for bringing raw materials in and hauling finished products out.

U.S. Route 7 is the primary north-south highway. It provides access to such cities as Bennington and Burlington in Vermont, to the north, and to New Haven and New York City to the South. East-west highways include the Mohawk Trail (Route 2) in the north, Route 20 in the central portion, and Route 23 and the Massachusetts Turnpike in the South.

Opened in the spring of 1957, the Turnpike provides quick and easy access to Boston and other points in the eastern part of the state. New In-

terstate Highway 91, which will bisect Massachusetts on a north-south route, will cross the Turnpike (U.S. 90 in the Interstate System) at Springfield. Parts of 91 have been completed, and other sections are under construction. Through Massachusetts the route of 91 is roughly the same as that of the present U.S. 5.

In Berkshire County terminals of scheduled motor carriers are located in Adams, Pittsfield, Great Barrington, North Adams and Lee.

The railroads serving the county are the Boston and Albany, Boston and Maine, and the New Haven. Routes of the Boston and Albany and Boston and Maine are east-west, the former connecting at Albany with the New York Central and the latter connecting in the north with the Canadian Pacific and the Canadian National Railway. Running north and south, the New Haven provides direct connections to New York and points in the South.

For the movement of heavy goods, the Port of Albany provides water transportation the year around for ocean-going vessels, and eight months for barges. The port is approximately 36 miles away from Pittsfield and North Adams.

The air service picture in Berkshire is less favorable, as only Pittsfield currently is served by a scheduled air carrier. There is air freight service, however, connecting Pittsfield with Bradley Field at Springfield-Hartford, a trans-shipping point.

Besides the Pittsfield airport, which has paved and lighted runway 3,500 feet long, there are adequate airports at North Adams, Great Barrington. All these are used for private flying and executive aircraft.

Moves are now in progress to provide more scheduled air service for both passenger and freight movement in and out of the county.

The railroads provide some passenger service, but the present major facilities for passengers — other than by private automobile — are offered by the several bus lines which have routes through virtually all the key communities.

The Power and Fuels Reserves

Electricity in Berkshire County is supplied by Northern Berkshire Electric Company, Southern Berkshire Power & Electric Company — which are both in the New England Electric System — and Western Massachusetts Electric Company.

In our conversation with Mr. Whittlesey, the Western Massachusetts Electric manager in Pittsfield, he told us that his company has "plenty of

power available, as we have recently completed new generation and transmission facilities."

The systems are all interconnected, providing additional power when peak load demands are reached.

Important in the future picture of electric power in this area is the new plant of Yankee Atomic Electric Company at Rowe which is about 10 miles northeast of North Adams. On a 2,000-acre site, the plant cost in the neighborhood of \$50 million and has 134,000-kilowatt generating capacity.

Instead of the conventional boiler used in standard steam-electric generating plants, the Yankee plant has a pressurized water reactor contained in a large steel sphere. This is similar to the units powering the atomic submarine *Nautilus*.

Yankee Atomic Electric Company was formed in 1954 by 10 New England electric utilities, including the three serving Berkshire County.

In common with the rest of New England, Berkshire County has electric rates somewhat higher than the U.S. average, as a result of higher fuel costs, among other things, but the relative difference would not be a deterrent to the great numbers of industries in whose cost of operation the electric bill is only a small part of the total expense of doing business.

Natural gas is supplied to most areas of the county by the Berkshire Gas Company.

Vice President Joseph T. Kelley of Berkshire Gas said in an interview that during the past five years the company had spent \$4.2 million for expansions of facilities. "We have available now a good supply of gas for industrial, commercial and residential users," he added. "This will be even better in the future, as we have programmed additional expenditures totaling \$2.5 million for more capacity during the next five years."

He said the general trend of business here is upward, and his company intended to be ready to meet anticipated demands for gas by keeping up with the area's over-all economic growth.

Since New England has no known commercial deposits of industrial fuels, coal and oil are brought in from a variety of places which, of course, involves higher transportation costs. However, as pointed out in a report of the Federal Reserve Bank of Boston, differences in fuel costs between regions may be reduced by individual companies by an effective, well-planned purchasing program and efficiencies in the heating plant itself.

BERKSHIRE COUNTY

Mineral and Agricultural resources

Figures compiled by the Bureau of Mines, U.S. Department of the Interior, show that mineral production in Berkshire County totaled \$3,919,736 in 1959, up from \$3,680,418 in the previous year.

Lime led in importance, with stone, sand and gravel following, in that order. Lime production has been oriented to building, agricultural and various chemical and industrial uses.

It is expected that mineral production in the county will continue to increase in value and importance for a number of years to come.

In the agricultural picture there has been in Berkshire County, as in other parts of the nation, a trend toward a decreasing number of farms while the size and value of the land and buildings is increasing. In combination with increased mechanization, this continues to make available a growing number of workers who are leaving the farms to seek jobs in industry.

General farming and dairy and poultry farming are by far the most important agricultural activities in the county, and a steady growth has been enjoyed particularly in dairying and poultry raising.

Berkshire County is heavily forested, about two thirds of the total area of 600,000 acres being covered in trees. Sawmilling is the county's major forest-product industry at present, but there are good possibilities for development of wood using industries, producing such things as boxes, crates, furniture, and so on, in the future when present stands of pole timber reach saw timber size. Hard woods predominate, and the area of potentially commercial wood in that category far exceeds that of soft woods.

Important findings and plans for further development are expected to result from the Forest Resources Study now being conducted in the county.

Water resources in the county consist primarily of supplies available from the Housatonic and the Hoosic Rivers, and ground water. The Housatonic Basin covers the southern two thirds of the county, while the Hoosic covers the northern third.

Ground water is used for domestic purposes in many instances, as well as by many existing industries, and there is every indication that use of ground water, particularly in the river valleys, can be greatly increased.

Pollution, resulting from industrial wastes, continues to be a problem, but several constructive moves to combat this have been and are being

made from the state on down to the community level.

Unusual Educational Opportunities

In addition to its extensive public school system, which has undergone recent improvement and expansion, Berkshire County is the home of an unusual number of private schools. These attract not only local children but also students from literally everywhere.

At Great Barrington is Barrington School, a boys' school — college preparatory — with elementary and high school grades. Also here is Cornwall Academy which offers not only grades six to eight and high school training for boys but also one year of postgraduate work.

The Stockbridge School for boys and girls, at Interlaken, is high school level only, while at Lenox the Cranwell Preparatory School, under the direction of the Jesuit Fathers, offers eighth grade and high school, plus one year postgraduate for boys.

Also at Lenox is Foxhollow School for girls, high school, and Lenox School, for boys, offering grades seven and eight and high school. It is an Episcopal institution. Another at Lenox, for boys and girls, is Windsor Mountain School, with grades seven and eight, high school, and postgraduate courses.

Miss Hall's School at Pittsfield is for girls and offers high school work. At Sheffield is Berkshire School, for boys, with high school courses, and the Buxton School at Williamstown is a high school for boys and girls. Pine Cobble School at Williamstown offers courses for boys and girls from nursery and kindergarten level through the ninth grade.

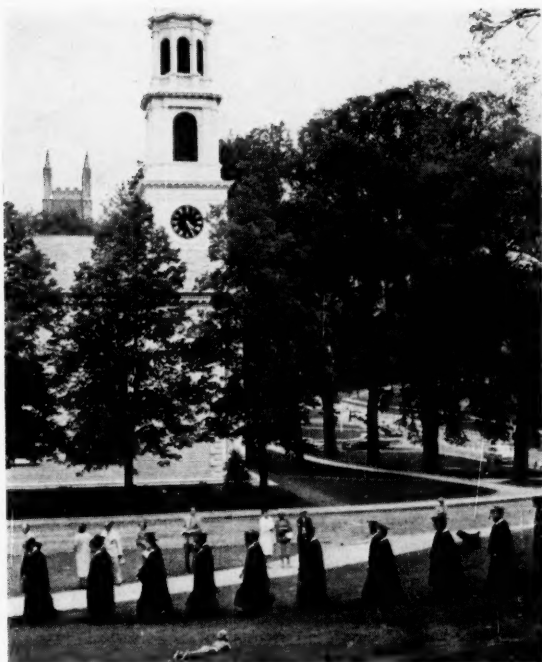
Parochial schools also are well distributed among communities in the County.

Among important new developments are the new regional high school at Williamstown and the State Junior College at Pittsfield which was opened for classes at the beginning of the 1960-61 term.

Of particular interest to industrialists is the planned new Regional Vocational School at North Adams which will cost an estimated \$1.4 million. Work at this institution will be aimed at developing skills needed by industry in the Northern Berkshire area.

Degree-granting institutions in Berkshire County are Williams College, Williamstown, and the North Adams State College.

Regarded as one of the outstanding liberal arts colleges in the nation, Williams dates back to 1791.



Regarded as one of the outstanding liberal arts colleges in the nation, Williams College at Williamstown dates back to 1791. The college has a cooperative program which provides special technical help to industry in the area. Here a group of graduates stroll across the campus.

An unusual feature of the college is that it offers the sons of persons who have resided in Williamstown for a reasonable period, and who can meet entrance requirements, a tuition-free college education.

A combination plan with the Massachusetts Institute of Technology is available, under which students spend three years of study at Williams and two years at M.I.T.

An illustration of how Williams can be and is of direct help to industry is the cooperative plan it has with Sprague Electric Company in North Adams. In the program, Sprague scientists participate as part-time instructors in physics and chemistry. In return, the college has made available to Sprague engineers and scientists its M.A. program in chemistry and physics.

The North Adams State College is co-educational and offers degrees in education. With dormitory and athletic facilities located in a fine residential area, the college recently underwent an important expansion of facilities.

Facilities for higher education not in the county but only a short distance away include Emma Willard School for girls, Russell Sage College for Women, and the renowned Rensselaer Polytech-



In their continuing programs to provide the best in public school facilities, Berkshire County communities now have some of the nation's finest schools. A good example of this modern and functional North Junior High School at Pittsfield.

nic Institute, all at Troy, New York; M.I.T. and Harvard at Cambridge; Smith at Northampton, and many others.

The result is that when you locate in Berkshire County you can be assured that your children and the children of your employees will have easy access to some of the finest educational institutions, at all levels, that the nation has to offer.

The Best Components of "Liveability"

It was the consensus of the various leaders here with whom we visited that perhaps the greatest single asset in Berkshire County is made up of those amenities that make for good living.

Historically a center of culture, Berkshire has among its many plus factors in this field the famous Tanglewood at Lenox, summer home of the Boston Symphony which gives a series of concerts there during the season. There are also chamber music and jazz concerts, as well as other events, and the Berkshire Music Center conducts a day school of music.

The extensive grounds and gardens of Tanglewood are extraordinarily pretty, in a heavily wooded setting, and among the many interesting things we saw during our stroll around the

BERKSHIRE COUNTY



Internationally known is Tanglewood, at Lenox, summer home of the Boston Symphony and a major center for activities in the field of music. This is the music shed at Tanglewood where visitors may enjoy concerts while lounging on the spacious grounds.

grounds was Hawthorne Cottage. This is a replica of the "Little Red House" where Nathaniel Hawthorne lived in 1850-51 and wrote "The House of Seven Gables" and "Tanglewood Tales."

Summer theaters are operated at Stockbridge and Williamstown in the county, while other outstanding theater performances are given during the season at Stratford, Connecticut, near Bridgeport, and at Malden Bridge, New York, only 22 miles from Tanglewood.

A mecca for dance lovers is Jacob's Pillow Dance Festival, Inc., at Lee where performances are given by visiting dancers and dance companies from all over the world at the Ted Shawn Theater.

At Pittsfield is Berkshire County's public art, science and local history museum. Another outstanding collection of art, both painting and sculpture, may be seen at the Sterling and Francine Clark Art Institute in Williamstown, and there are many other spots of cultural interest throughout the county.

In the recreational picture, the scenery alone of the Berkshire Hills is a constant source of enjoyment to residents and also attracts thousands of tourists, particularly in the summer, and in the



"Liveability" is a key word to describe the Berkshire Hills, and it applies to every month in the year. Winter sportsmen from all over the country are attracted by the five excellent Skiing areas in the county. These skiers are on Jiminy Peak near Hancock.

fall when the leaves become a blaze of color.

Sporting facilities include 14 golf courses, numerous tennis courts, jewel-like lakes for swimming, boating and fishing; riding trails, skiing and skating. For the spectator, horse shows and polo matches are offered.

The many state parks and forests provide good facilities for picknicking and camping, and the Appalachian Trail which runs the entire width of the county, north-south, is very popular with hikers. For winter sports, there are five excellent ski areas.

Good hunting also is available in many areas, the most sought-after and most prevalent game being deer, ruffed grouse and woodcock. Raccoon are being taken in increasing numbers for sport, food and fur, while rabbits are popular small game with many rural residents.

Altogether, residents of the county and visitors have found that any time of year there is always plenty of cultural and recreational activity throughout the Berkshire Hills part of the state.

In addition, the community services in the 32 large and small cities and towns provide the best in medical care facilities, police and fire protection, and for the general public welfare.

The Regional Plan

Berkshire County has the commission form of government which cooperates fully with both the state and local administrations in helping to provide all the services necessary to maintain and protect a growing economy.

A significant move which is having and will continue to have a profound influence on progress in the county and on enhancing its plus factors for industrial growth is the comprehensive regional plan.

Technical Planning Associates, Inc., of New Haven, conducted a study of Berkshire County from July, 1958, through November, 1959, and on the basis of this study prepared for the Commissioners The Regional Plan for Berkshire County.

This followed a report, completed in March, 1958, made by Arthur D. Little, Inc., for the Berkshire County Industrial Development Commission and in which a number of specific recommendations for improvement were made.

All the recommendations were taken into consideration, and the 64-page report on the regional plan spells out courses of action that are presently being acted upon by the Commissioners, the Development Commission and by government and civic leaders at the local level. The results of this action in months and years hence remain, of course, to be seen. However, the way in which the new coordinated effort and organized planning already have paid off may certainly be regarded as an encouraging harbinger of things to come.

Concrete Signs of Progress

Development Commission Director Ahern reports, for example, that since the B.C.I.D.C. became active in July, 1957, 14 new industrial citizens located in the county up through July, 1960.

Further, three existing plants either have expanded their operations or announced plans for extensive improvements or for construction of new buildings.

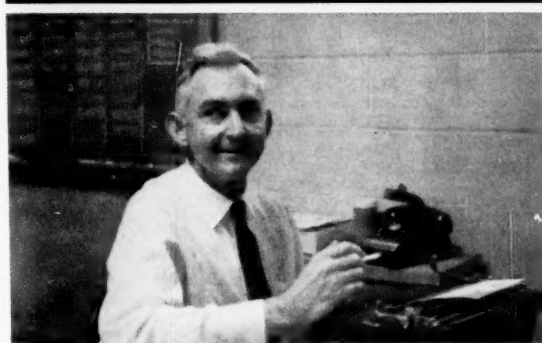
More than \$500,000 in financing was provided for either new industry or expanding industry by the Massachusetts Business Development Corporation, with five of the county's banks also participating; and three industrial parks have been planned in areas zoned for industry, comprising a total of about 200 acres.

Community improvements in the county (some of these we mentioned earlier) include the North Berkshire Regional Vocational School and five other schools either under construction or

planned; sewage facility programs in Williamstown, Adams, Dalton and Pittsfield; urban renewal, flood control and housing in North Adams, and water resources improvements in Pittsfield.

Master plans have been, or are being, prepared for North Adams, Adams, Lee, West Stockbridge, Richmond, Great Barrington and Dalton. Zoning is being considered in Adams, amended in Great Barrington, and will comprise part of a master plan study being considered in Williamstown.

Concerning these developments Mr. Ahern observed: "While these facts indicate tangible areas of progress in industrial development in Berkshire County, many of them would not have occurred in the absence of the cooperative effort in the industrial development field of the three area industrial development groups working with B.C.I.D.C. This is particularly true in relation to the elements of industrial financing, industrial parks and districts, community improvements and planning."



Jouett Davenport, Jr., who wrote this report on Berkshire County, is managing editor of I.D. and a veteran of 20 years in the writing and editorial field, primarily in business and economics. Since joining the Conway organization he has produced more than 30 of these special area analysis studies, covering points from coast to coast in the United States, as well as in Canada.

How the I.D. Team Functions

The purpose and functions of the Berkshire County Industrial Development Commission embrace four major areas of activity: Planning, research, promotion and public information. Briefly, the approach to these functions, given in order, is to:

1. Develop a general plan for industrial development of Berkshire County as a guide to cities and towns of the county in the execution of their function in this field, particularly in the matter of land use patterns, zoning and building codes.

2. Gather and make available all data of regional application relating to industrial develop-



Leaders in the I.D. team cooperating to boost Berkshire County's attractions include (left to right) Roger Jewett, executive director, Northern Berkshire Development Corporation, North Adams; John F. Downing, executive director of the Association of Business and Commerce of Central Berkshire County, Pittsfield; A. John Tuller, director of the Barrington Industrial Corporation, Great Barrington, and chairman of the Berkshire County Industrial Development Commission; John F. Shea, Clinton J. Foster and James A. Bowes, county commissioners and directors of B.C.I.D.C., and Philip C. Ahern, executive director of the Commission.

ment and to assist the cities and towns to gather similar data of local application.

3. Advertise by any and all effective means the information concerning Berkshire County most likely to attract to the area plants suitable for location here and to coordinate the efforts of the local public and private agencies directed toward arrangements for site selection, financing and other aspects of actual plant location.

4. Serve as an information center for all inquiries about the county as an industrial site from external sources, to provide public and private agencies in the county with all available material needed to fulfill their separate functions, and to create a public awareness of the need for industrial development in Berkshire County on a planned and orderly basis.

It may be seen, then, that the B.C.I.D.C. under Mr. Ahern's direction is in a position to render

immediate and constructive help should you be interested in a Berkshire County site for a commercial or industrial facility.

Likewise, you can expect full and capable cooperation from such leaders as John Downing and William Whittlesey of the Central Berkshire Association of Business & Commerce in Pittsfield; President Robert K. Wheeler of the Barrington Industrial Corporation and John Tuller in Great Barrington; and Roger Jewett and Clint Whitney of the Northern Berkshire Development Corporation, North Adams.

These, along with the other active Berkshire leaders we met and those we did not have an opportunity to chat with, are the key to Berkshire County's future. And, since they are deeply and vitally concerned with that future, they are set to extend a hearty welcome to anyone interested in becoming a part of the progressive citizenry.

I.D. AREA SERIES

This report on the site selection and plant location factors in Berkshire County, was prepared by the editorial staff of **INDUSTRIAL DEVELOPMENT** under the auspices of the Berkshire County Industrial Development Commission. Copies of the study may be obtained without cost from Philip C. Ahern, executive director of the Commission, Court House, Pittsfield, Massachusetts.



MANUFACTURERS RECORD

THE INTERNATIONAL SUMMARY OF PLANT LOCATION NEWS

ESTABLISHED 1882 VOLUME 129 NUMBER 12

By Arnett Custer

The following new plants were selected as significant and representative highlights of the September industrial development scene.

LE HAVRE, FRANCE. El Paso Natural Gas Products Company and Compagnie Francaise de Raffinage plan an \$18 million polyethylene plant to be owned and operated by the Raffinage firm and the newly-established El Paso France-Afrique. The new company is an 85 percent-owned subsidiary of El Paso Gas with remaining ownership in the hands of French bankers. Construction of the plant begins early in 1961; completion is expected by early 1963. The Le Havre facility will have an annual production capacity of 44 million pounds of high-pressure polyethylene, acquiring feed stock from Raffinage's adjoining Confreville oil refinery. Marketing plans are directed toward France.

KITCHENER, ONTARIO, CANADA. Plans for "the most modern tire plant in Canada" to cost \$7 million were announced by B. F. Goodrich Canada Limited President, R. V. Yohe. The firm has acquired 100 acres in the Kitchener Industrial Basin for construction of the new plant. The completion date is set for 1962.

WILMINGTON, DELAWARE. Bestwall Gypsum Company will locate its first manufacturing facility on the mid-Atlantic coast at the Wilmington Marine Terminal. The \$7.5 million plant will be in operation within a year, producing 150,000,000 square feet of gypsum wallboard, lath and sheathing annually. Gypsum wall plasters, graded commercial rock and agricultural gypsum are other items slated for production at the plant.

LEMONT, ILLINOIS. A \$12 million steel plant recently completed by Ceco Steel Products Corporation of Chicago will go into full production by 1961. The 180,000-

ton-capacity-plant marks the company's first venture into steelmaking and furnishes Ceco with half the steel required to produce its line of reinforcing bars and other building products. The Lemont facility was in operation only 18 months after groundbreaking, rolling 115 tons of rebar on the second day.

ALBUQUERQUE, NEW MEXICO. Military electronics will be produced early next year at Sparten Corporation's ultra-modern \$1 million facility in this city's new industrial park. A broad range of electronics, electro-mechanical and mechanical systems, sub-systems and components will be developed and produced; production capacity is planned at 50,000 more square feet in the next three years. The 50,000 square foot building houses the engineering lab, environmental test facilities, machine shop, precision printed circuit department, precious-metal plating facility and an ultra-clean assembly area.

The following is a summary of major industrial plants in the United States, Canada, and foreign countries, reported to INDUSTRIAL DEVELOPMENT during the month of September, 1960, by industries and industrial development organizations.

Number of employees is indicated by the code: A(Under 25); B(25-100); C(100-250); D(250-1,000); and E(over 1,000).

ALABAMA

Ozark — Ozark Metal Products Co.; metal lockers, cabinets shelving. Est. date of oper. Dec. 1960. \$175,000. (B).

Phenix City — Courtland Box Co.; boxes. Plans announced. \$275,000. (C).

Pisgah — Dover Mills (Affil. Andover Togs, Inc. of Scottsboro Mfg. Corp.); garments. Under Constr. \$210,000. (C).

ALASKA

No Plants Reported.

ARIZONA

No Plants Reported.

ARKANSAS

Harrisburg — Harrisburg Mfg. Co. (Subs. Johansen Bros. Shoe Co., Inc.); Hwy. 1; shoes. Under constr. 22,000 sq. ft. (C).

Jacksonville — Southern Screw Machine Products Co. (Subs. Measuregraph Co., G. S. Rosborough, Jr., Pres.); special screw machine prods. Under constr. Est. date of oper. early 1961. 10,000 sq. ft. \$150,000.

CALIFORNIA

Bakersfield — Continental Carbon Co. Under constr. \$4 million. (B).

Cucamonga — Pacific Steel Rolling Mills, Inc. (Subs. Cons. New Pac. Corp. & Natl. Outlook Corp.); alloy & stainless steel. Plans announced. \$5 million.

Los Angeles — Collier Carbon & Chem. Corp. and Tidewater Oil, Robert T. Collier, Pres. CC&C Corp. & George F. Getty II, Pres. Tdwt. Oil; 714 W. Olympic Blvd.; petroleum naphthalene. Est. date of compl. late 1961.

Sacramento — Keyes Fibre Co., Ralph H. Cutting, Pres.; Gerber Rd. & Cottonwood Lane; molded pulp prods.-plates, trays, etc. Est. date of constr. Spring 1961. 30-acre site. 150,000 sq. ft. \$1 million. (C).

COLORADO

Boulder — Automation Industries; ultrasonic res. & testing. In oper. 10,000 sq. ft. \$50,000. (B).

Golden — Kollstan Semiconductor Elements, Inc., Norman J. Egli, Gen. Mgr., 1221 Ford St.; crystal element subassemblies for semiconductor mfg. In oper. (B).

NEW PLANTS

Kremmling — Crown Zellerbach Corp.; pulp mill, newsprint mfg. Planning. (D).

CONNECTICUT

Bridgeport — Perkin-Elmer Corp.; electro-optical eng., res. & dev. Est. date of oper. late Spring 1961. 16-acre site. 100,000 sq. ft. \$1.5 million.

Naugatuck — Naugatuck Chemical (Div. U.S. Rubber Co.); tech. cntr. Under constr. 37,000 sq. ft. (C).

DELAWARE

Newark — W. L. Gore Associates, Paper Mill Rd., wire & cable for aircraft missiles, ground control systems, communications & electronic applic. Est. date of oper. Dec. 1960. 10-acre site. \$150,000. (B).

Newark — Phoenix Steel Corp.; steel, steel plates & pipes. In oper. \$15 million. (E).

Wilmington — E. I. DuPont de Nemours & Co., Ind. & Biochem. Dept., Thos. H. McCormack, Gen. Sales Dir., Chestnut Run; sales service lab. Est. date of compl. late 1961. 160-acre site. \$2 million.

DISTRICT OF COLUMBIA

No Plants Reported.

FLORIDA

Avon Park — Hosecrafters, Inc., L. Mac Hall, Secy.-Treas.; hosiery & knit goods. In oper. 10,000 sq. ft. (B).

Bradenton — Swanson Machine Corp., Leonard N. Swanson, Pres.; metal cabinets. Est. date of oper. Dec. 1960. 36,000 sq. ft. (C).

Hialeah — Robbie-Lynn, Jerry Diamond, Pres.; dresses. Est. date of oper. 1960. 8,000 sq. ft. (B).

Jacksonville — Container Wire Products Co., Henry Bisplinghof, Pres.; steel wire for containers. Est. date of oper. 1960. 40,000 sq. ft. \$300,000.

Jacksonville — Reichold Chemicals, Inc., Robert Fellows, Mgr.; polyester & alkyd resin. \$500,000.

Tavares — Curtis Manufacturing Co., Vass Barletti & Larry Blake, owners; men's apparel. In oper. (B).

West Palm Beach — Mal Tool & Engineering Co., George Longtin, Pres.; aircraft parts. Plans announced. (B).

GEORGIA

Atlanta — Lloyd A. Fry Roofing Co., Fulton Ind. Dist.; asphalt roofing. Under constr. 30-acre site. \$3 million. (C).

Tucker — Modular Components, Inc., Fred G. Fett, Jr., Pres., Lawrenceville Hwy.; roof trusses, wall section, etc. Under constr. 5-acre site. 17,000 sq. ft.

HAWAII

No Plants Reported.

IDAH0

No Plants Reported.

ILLINOIS

Antioch — Gefco Manufacturing Corp.; radio loud speakers. Plans announced. 13,000 sq. ft.

Bedford Park — Nalco Chemical Co.; water, weed & fuel oil treatment chem. Plans announced. 44,000 sq. ft. (2 bldgs.).

Bellwood — Pat Mooney, Inc., Eastern Ave.; cutting edge tools & distr. circular saw machinery. Under constr. 10,000 sq. ft.

Chicago — Acorn Sheet Metal Manufacturing Co., Inc., Franklin-Manheim Section, Clearing Ind. Dist.; metalworking. Est. date of oper. late 1960. 4.5-acre site. 77,000 sq. ft.

Chicago — Alloy Socket Screw Products Co., 3654 N. Lincoln Ave.; socket set screws. In oper. 10,000 sq. ft.

Chicago — Robert Arnold Co., Inc., 5512 N. Western Ave.; curtain wall. In oper. 11,000 sq. ft.

Chicago — Control Panel Corp., 4431 W. Division St.; ind. control panels. 19,000 sq. ft.

Chicago — Dupli-Graphic Processors, Inc., 630 S. Wabash Ave.; lithographing plates. In oper. 12,000 sq. ft.

Chicago — Plastic Trading Co. (Subs. Miller Waste Mills, Inc.), 1750 W. Wrightwood Ave.; distr. cntr. for plastic prods. In oper. 10,000 sq. ft.

Chicago — Spiegel, Inc., 1061 W. 35th St.; mail order whse. In oper. 45,000 sq. ft.

Chicago — United Rack Co., S. 18th Ave., Broadview; plating racks, ind. plastic coating. Under constr. 10,000 sq. ft.

Elk Grove — Goodyear Tire & Rubber Co., Victor Holt, Exec. V. Pres.; dist. ofc. & whse. Est. date of oper. May 1961. 150,000 sq. ft. \$1.25 million.

Joliet — Olin-Mathieson Corp., Edw. Block, Sr., V. Pres. & Mgr. Chem. Div.; phosphoric acid for mfg. of sodium phosphates in high analysis fertilizers. Under constr. Est. date of oper. April 1961. \$1.5 million.

Lemont — Ceco Steel Products Corp., C. Foster Brown, Jr., Pres.; steel. In oper. \$12 million.

Mapleton — Archer - Daniels - Midland Co.; industrial & intermediate chem. prods. Under constr. \$15 million.

Peoria — Muirson Label Co. (Div. Internatl. Paper Co.), Jos. H. Eilers, Jr., V. Pres. & Plnt. Mgr.; labels for canned goods, etc. Under constr. 16-acre site. 105,000 sq. ft. \$3 million. (C).

INDIANA

Connersville — Public Service Co. of Indiana, Lawson Williams, Dist. Mgr.; utility hq. Plans announced. 18,000 sq. ft. \$250,000. (B).

IOWA

Manning — Carpenter Enterprises; lampshades. 16,000 sq. ft. (C).

KANSAS

Kansas City — Katz Drug Co., M. H. Katz, Ch. of Bd.; whse. Est. date of compl. late 1961. 225,000 sq. ft. \$1.5 million.

KENTUCKY

Eminence — Brunswick Corp. Red Head Brand Div., Clarke F. Hine, Pres.; sporting equip. Est. date of oper. early 1961. 32-acre site. 166,000 sq. ft. (D).

LOUISIANA

No Plants Reported.

MAINE

No Plants Reported.

MARYLAND

Baltimore — Armco Steel Corp., Baltimore Works, C. C. McElvain, Mgr., 3400 E. Chase St.; steel processing & whse., cooling towers, etc. Est. date of compl. Sept. 1961.

Baltimore Co. — Cinder & Concrete Block Corp., J. Leo Muller, Sr., Pres., Beaver Dam Rd. Est. date of compl. Mar. 1961. 7-acre site. 26,000 sq. ft. (2 bldgs.).

MASSACHUSETTS

Avon — Hermatite Corp.; electronics. In oper. 3.5-acre site. 30,000 sq. ft. (B).

Canton — McKesson & Robbins Co.; drugs. Est. date of oper. Mar. 1961. 38,000 sq. ft. (C).

Chicopee Falls — Crucible Steel Co.; steel whse. Est. date of oper. Dec. 1960. \$160,000. (B).

Natick — U.S. Army Quartermaster Corp.; res. & eng. ctr. \$1.8 million.

Needham — Ludlow Corp.; res. bldg. Est. date of oper. Feb. 1961. \$300,000. (C).

Needham — Upjohn Co.; drug whse. In oper. 43,000 sq. ft. \$425,000. (B).

Reading — Addison Wesley Co.; publish. & print. In oper. 30,000 sq. ft. (B).

Reading — Burlington Ind., Inc.; textiles. Est. date of oper. Feb. 1961. 40,000 sq. ft. \$350,000. (B).

Waltham — Air Reduction Sales Co.; ind. gases. Est. date of oper. Mar. 1961. 1.5-acre site. 7,500 sq. ft. (B).

Worcester — Kenmore Transportation Co.; transportation. Est. date of oper. Jan. 1961. 6-acre site. \$100,000. (B).

MICHIGAN

Ann Arbor — Cimco Engineering Co. (Subs. Trilex Corp., Hq. Wayne), John Airey, Pres.; auto ind. assembling machines. Under constr. \$250,000.

Egelston — Lakeway Chemicals, Inc., Norman Phaneuf, Pres., 5025 Evanston Ave.; specialty organic chemicals. Plans of constr. unannounced. 40-acre site. \$500,000. (B).

Muskegon — Bemis Bros. Bag Co., Techmold Div., Judson Bemis, Pres.; Lincoln St.; paper bags & flexible pkging. Plans announced. 6-acre site. 50,000 sq. ft. \$500,000. (B).

Muskegon — Brunswick Corp., J. O. McNamee, V. Pres.; bowling prods. Plans announced. \$2 million. (E).

Plymouth — Wheel Trueing Tool Co., Harold E. Robison, Pres.; diamond tools, bits, etc. Est. date of oper. Sept. 1962. 12-acre site. 50,000 sq. ft. (C).

MINNESOTA

Minneapolis — Marquette Corp., Bank St. & S.E. University Ave.; welding electrodes. Est. date of constr. Jan. 1961. of oper. July 1961. 21,000 sq. ft. \$450,000.

MISSISSIPPI

Clinton — Southern Materials of Miss., Inc., Herman Genet, Pres., P. O. Box 221; agricultural lime. In oper. \$250,000. (A).

Greenville — Atkins Saw Co. (Div. Borg-Warner Corp.), Frank G. Fisher, Pres.; saws. Est. date of oper. Oct. 1961. 44-acre site. (D).

Jackson — Langston Bag Co., Gene White, Mgr.; cotton & burlap bags. In oper. (B).

Rienzi — Lifetime Pools Equipment Corp.; swimming pools. \$225,000. (C).

MISSOURI

Festus — Howard Industries, Inc., Ray Melvin, Plnt. Mgr.; sub-fractional hp. elec. motors. Plans announced. \$800,000.

Glasgow — Bob Monning Industries, Inc.; wood prods. Plans announced. 30,000 sq. ft. (B).

Hannibal — Western Publishing Co.; commercial prntg. & book distr. Plans announced. 20,000 sq. ft.

Herculaneum — St. Joseph Lead Co.; lead & silver smelters. Est. date of oper. Mar. 1960. 10,000 sq. ft. (B).

Kansas City — Allied Paper Bag Co.; paper & textile bags. Plans announced. 25,000 sq. ft. (B).

Kansas City — Eternal Shield Co. (Div. Assoc. Research Prods. Co.) 11,000 sq. ft. (B).

Kansas City — Pioneer Bat Co.; paper bags. 25,000 sq. ft. (B).

Kansas City — Pioneer Mesh Weaving Mills; woven bags for produce. 25,000 sq. ft. (B).

Kansas City — Pioneer Used Bag Co.; reprocessing used paper bags. 25,000 sq. ft. (B).

THE TOP TEN

The following ten states ranked highest in number of significant new plants reported in INDUSTRIAL DEVELOPMENT during the six month period ending October 1960. The figure to the right represents each state's actual six-month total.

1. ILLINOIS	116
2. TEXAS	113
3. PENNSYLVANIA	107
4. FLORIDA	106
5. OHIO	102
6. MISSOURI	57
7. MASSACHUSETTS	52
8. CALIFORNIA	50
9. TENNESSEE	47
10. MICHIGAN	41

NEW PLANTS

Missouri City — Mid America Pipe Line Co.; pipeline transmission & distr. of L.P.G. Under constr. \$7 million. (A).

North St. Louis — International Paper Co., Hwy. 66 & Larimore Rd.; corrugated shipping containers. Under constr. 85,000 sq. ft. (B).

Olivette — B. F. Goodrich Co. Tire Div., E. F. Tomlinson, Pres.; retreading plant. In oper. 15,000 sq. ft. (B).

Overland, Lakeside Ind. Park — B. F. Goodrich Co. Tire Div., E. F. Tomlinson, Pres.; distr. cntr. Est. date of oper. Jan. 1961. 5.5-acre site. 80,000 sq. ft. (B).

St. Joseph — Woodbury Chemical Corp.; liquids, insecticides, detergents. Est. date of oper. early 1961. 26,000 sq. ft.

St. Louis — Kupferer Bros. Ornamental Iron Works, Hwy. 66, Crestwood; ornamental iron. In oper. 14,000 sq. ft.

St. Louis — Sel Mor Garment Co., Plaza Square Bldg.; women's & girls' lingerie. In oper. 90,000 sq. ft. (D).

Thayer — Reliance Manufacturing Co., Thornley Dana, Mgr.; dresses. Plans announced. 13,000 sq. ft. (C).

Washington — Sporian Valve Co., Paul Faris, Supt.; valves. Plans announced. 20,000 sq. ft. (2 bldgs.). (C).

MONTANA

No Plants Reported.

NEBRASKA

Cozad — Monroe Auto Equipment Co.; automotive parts. In oper. 40,000 sq. ft. (D).

NEVADA

No Plants Reported.

NEW HAMPSHIRE

No Plants Reported.

NEW JERSEY

Jersey City — Morgan Laundries, Inc., Lawrence Ind. Prk.; laundry facility. Plans announced. 80,000 sq. ft. (D).

Montville — Thermal American Fused Quartz Co., Change Bridge Rd.; chem. lab. equip., quartz vessels & shapes for ind. Est. date of oper. late Summer 1961. 7-acre site. 54,000 sq. ft.

Mount Laurel — U. W. Gasket Co. (Div. Garlock Packing Co., Hq. Phila.), Walton Ave. nr. N. J. Trnpke. interchng. 73; 110-acre site. 300,000 sq. ft. \$3 million. (D).

North Brunswick — Webb Wire Co. (Div. Carpenter Steel Co.), John H. Corson, Div. Mgr., 7200 Livingston Ave.; wire drawing mill for stainless steel spring, needle & nickel alloy elect. wires. Under constr. Est. date of compl. Feb. 1961. 6-acre site.

NEW MEXICO

Albuquerque — Spartan Corp., John J. Smith, Pres.; military electronics. Under constr. Est. date of compl. Feb. 1961. 20-acre site. 50,000 sq. ft. \$1 million.

NEW YORK

Corning — Corning Glass Works, Amory Houghton, Jr., Staff V. Pres.; res. & eng. cntr. hot process lab. Under constr. Est. date of compl. May 1961. 400-acre site. 94,000 sq. ft.

Tonawanda — Lucidol (Div. Wallace & Tiernan, Inc.), 1740 Military Rd.; chem. res. lab. Est. date of compl. late Spring 1961. Est. date of oper. Aug. 1961. \$750,000.

Webster — Haloid Xerox, Inc., Jos. C. Wilson, Pres., Phillips Rd. & Donovan St.; dry powders for otc. copiers. Est. date of oper. June 1961. 180-acre site. \$1 million.

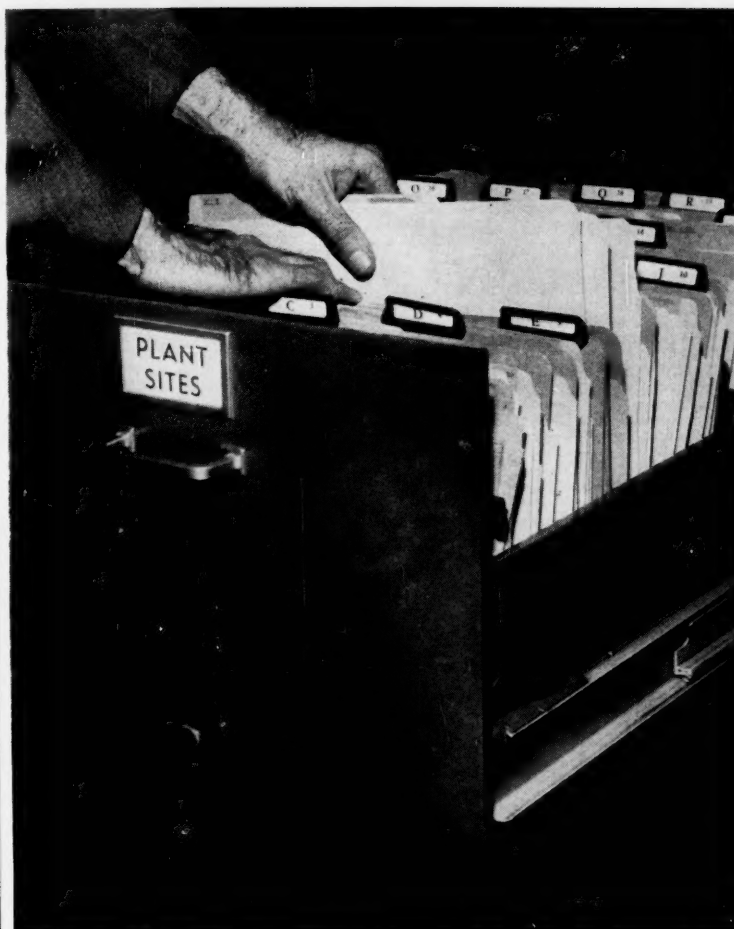
NORTH CAROLINA

Dunn — Vogue Manufacturing Co., W. L. Shook, Pres.; upholstered lvngrm. furniture. In oper. 10,000 sq. ft.

Raleigh — Corning Glass Works, Malcolm H. Hunt, Elec. Component Dept. Mgr., Karl R. Wuensch, Plnt. Mgr., New Hope Church Rd.; elec. capacitors. 32-acre site. 120,000 sq. ft. (D).

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NEW PLANTS

OHIO

Addyston — Monsanto Chemical Co., R. K. Mueller, V. Pres. & Plastics Div. Mgr.; heat resistant & high impact styrene molding & extrusion materials. Under constr. \$Multi-million.

Marietta — Shell Chemical Co., R. C. McCurdy, Pres., Howard E. Hughes, Plnt. Mgr.; polyisoprene. Est. date of oper. late 1961. 300-acre site. \$Multi-million. (D).

Medina — B. F. Goodrich Tire Co.; tires. Est. date of oper. Dec. 1960. 165,000 sq. ft. \$900,000. (B).

Mogadore — General Tire & Rubber Co.; tire test center. Est. date of compl. May 1961. Est. date of oper. late 1961, full oper. mid-1962. 33,000 sq. ft. lab. \$2.5 million.

Rossmyrne — Continental Can Co.; plastic containers. 50,000 sq. ft. \$350,000.

Sharonville — St. Joe Paper Co., 3603 E. Kemper Rd.; corrugated paper boxes. 120,000 sq. ft. \$1.5 million. (B).

Wauseon, Wauseon Ind. Park — Seco Manufacturing, Inc., Peter C. Tainsh, Pres.; fire protection & safety equip. Under constr. Est. date of oper. Spring 1961. 7-acre site. 19,000 sq. ft. \$200,000.

OKLAHOMA

No Plants Reported.

OREGON

Milwaukie — Monroe Food Machinery Co., M. P. Monroe, owner-mgr., 200 N. River Rd.; plastic food containers. In oper. \$200,000. (B).

Portland — Joslyn Manufacturing Co., 10707 N. Oregonian Ave. (3). 15,000 sq. ft. \$40,000.

Portland — Pacific Machinery Co., 3445 N.W. Luzon St. 50,000 sq. ft. \$275,000.

Round Butte, Jefferson Co. — Portland General Electric Co.; power plant. \$70.9 million.

PENNSYLVANIA

Beaver Falls — McDanel Refractory Products, Inc.; porcelain. Plans announced. (B).

Blakeslee — Atlas Auto Seat Covers, Inc.; auto seat covers. Plans announced. 92,000 sq. ft. \$300,000. (B).

Boyetown — Boyetown Auto Body Works; commercial & military truck bodies. Est. date of oper. Jan. 1961. 38,000 sq. ft. \$350,000. (D).

Brownsville — Jay Coby, Inc.; women's apparel. Plans announced. (C).

Harrisburg — Meg's Macaroni Co.; egg noodle prods. Est. date of oper. Feb. 1961. 15,000 sq. ft. (B).

Lancaster — 60 Case Corp., 1106 Ranck Mill Rd.; precision hard ground steel shaftings. Plans announced. 5-acre site. 25,000 sq. ft. (B).

Lancaster — Thompson Corp.; hardened & ground steel shafting. Est. date of oper. Jan. 1961. \$260,000. (B).

Marcus Hook — SunOlin Chemical Co. (Subs. Sun Oil Co. & Olin Mathieson Chem. Corp.) Jas. I. Harper, Pres.; ethylene & ethylene oxide. Est. date of oper. late 1961. \$20 million.

Nickes Rocks — Electro-Air Cleaner Co., Inc.; electronic air cleaners. Est. date of oper. Jan. 1961. 53,000 sq. ft. \$440,000. (C).

Mercersburg — Mercer Co., Inc.; garments. Est. date of oper. Dec. 1960. \$150,000. (C).

New Stanton — Georgia Pacific Corp.; plywood. Est. date of oper. Jan. 1961. 36,000 sq. ft. \$332,000. (A).

Philadelphia — Continental Transportation Lines, Inc.; truck terminal. Plans announced. \$400,000. (C).

Philadelphia — Miller North Broad Storage Co.; moving & storage. Est. date of oper. Spring 1961. \$250,000. (B).

Philadelphia, Valley Forge Ind. Park — Navigation Computer Corp., J. Paul Jones, Pres.; digital computers & systems. Est.

date of compl. late 1960, -of oper. early 1961. 25,000 sq. ft. \$315,000. (C).

Philadelphia — Philadelphia Poultry Terminal, Inc., 836 S. Swanson St.; dressing poultry. In oper. 30,000 sq. ft. \$95,000. (B).

Philadelphia, Ft. Washington Ind. Park — Philadelphia Wholesale Drug Co.; distr. cntr. 14-acre site. 150,000 sq. ft. (D).

Philadelphia, Ft. Washington Ind. Park — Philco Corp., Gov't. & Ind. Group, Communications Systems Div.; Maj. Gen. E. Blair Garland, USAF, Ret.-Mgr.; Eng. & procurement of systems. Est. date of oper. early 1961. 70,000 sq. ft. (D).

Taylor — Sturdi-Wear Clothes, Inc.; outer garments for boys & men. Plans announced. 47,000 sq. ft. \$250,000. (B).

Upper Hanover Twp. — H. G. Knoll Products, Inc., Murray Rothenberg, V. Pres.; furniture. Under constr. 17-acre site. 100,000 sq. ft.

Warren — Loranger Plastics Corp.; plastic molders. Est. date of oper., Dec. 1960. \$250,000. (C).

Wynnewood — Auto Associates, Inc.; distr. cntr. Est. date of oper. Jan. 1961. \$400,000. (B).

PUERTO RICO

No Plants Reported.

RHODE ISLAND

Warwick — Speidel Corp. Ind. Div., Richard A. Cotter, Div. Mgr.; missile & space vehicle & high performance aircraft devices. Plans announced. 28-acre site. 42,000 sq. ft. (C).

SOUTH CAROLINA

Kingstree — Baxter Laboratories, Inc., Donald G. Madsen, Mgr.; intravenous solutions, blood equip., pharmaceutical specialties. Under constr. Est. date of oper. early 1961. 47-acre site. 92,000 sq. ft. (C).

SOUTH DAKOTA

Lead — Homestake Mining Co., Jas. O. Harder, Mgr., Bleck Hills Oper.; gold prods. Est. date of oper. late 1962. 14,000 sq. ft. \$1.6 million.

Knoxville, Pleasant Ridge Ind. Dist. — Solar Supply Co.; galvanized steel windows & storm doors. 2-acre site. 15,000 sq. ft. (B).

I. D. CALENDAR

NOVEMBER 30-DECEMBER 2, 1961

Industrial opportunities in Puerto Rico—Briefing Conference, First National City Bank of New York and Bureau of National Affairs, Inc., sponsors, San Juan Intercontinental Hotel, San Juan, Puerto Rico. Reservations made through Briefing Conference Secretary, 1231 24th Street, N.W., Washington 7, D. C.

DECEMBER 7-9, 1960

National Association of Manufacturers' 65th Annual Congress of American Industry, Waldorf Astoria Hotel, New York City, New York.

DECEMBER 12-16, 1960

American Management Association, Fundamentals of financial management for the junior financial executive, Seminar #1279-02, The Hotel Astor, New York City, New York. Reservations may be made through AMA, Inc., 1515 Broadway, Times Square, New York 36, New York.

TENNESSEE

Gallatin — Dominion Electric Corp.; appliances. Est. date of oper. Mar. 1961. 44-acre site. 75,000 sq. ft. \$250,000. (C).

Johnson City — Ryan & Hart Co., Elmer E. Buchan, Pres.; gaskets. In oper. (B).

Ramer — Martin Manufacturing Co., Chas. Hornbuckle, Plnt. Mgr.; sportswear. In oper. (C).

TEXAS

Bay City — Celanese Corp. of America, Jas. H. Worth, Pres.; petrochemicals. Plans announced. 1,000-acre site. \$Multi-million.

Beaumont — Foster Grant Co., Inc., Carl Fisher, Plnt. Mgr.; polyethylene. Under constr. Est. date of compl. mid-1961. 10-acre site. \$Multi-million. (C).

Beaumont — Mobil Chemical Co. (Div. Socony Mobil Oil Co., Inc.), Eber H. Peters, Mgr. S.W. Mfg.; benzene. Est. date of oper. Jan. 1962. \$25 million.

Dallas — H. L. Hunt Products Co. (Subs. Hunt Oil Co.); Parade brand food. Plans announced. \$1 million.

Dallas — Laura of Dallas, Murray A. Katzen, Pres., 1402 N. Peak St.; dresses. In oper. 20,000 sq. ft.

Deer Park — Diamond Alkali Co., W. J. Butler, Wrks. Mgr., Box 686, Pasadena; acetylene. Under constr. \$Multi-million.

Diboll — Tex-Lam, Inc. (Affl. Southern Pine Lumber Co., Jas. H. Bridges, Pres.); laminated beams, trusses, etc. Est. date of oper. Dec. 1960. 30,000 sq. ft. \$300,000. (B).

Ft. Worth — Acme Decorative Center, C. L. Wood, owner, 427 Fulton; draperies, etc. In oper. 12,000 sq. ft. (A).

Ft. Worth — A. E. Betzel Engineering Co., A. E. Betzel, Sr., Sr. Prtnr.; hwy. 157 S.; machine parts for aircraft & oil ind. In oper. 16-acre site. 20,000 sq. ft. (A).

Ft. Worth — Carling Brewing Co., Ian R. Dowie, Pres.; brewery. Under constr. \$20 million. (C).

Ft. Worth — Container Service, Inc. (Affl. Lind Paper Co.), H. B. Lind, Pres., 1608 Commerce St.; corrugated boxes, polyethylene bags. In oper. 14,000 sq. ft. (A).

Ft. Worth — Radiation Engineering & Manufacturing Co., M. M. Hawthorne, Pres., 5603 Stove Foundry Rd.; electronic & electro-mechanical prods. for oil ind. In oper. 12,500 sq. ft. (A).

Ft. Worth — Western Wear, Inc., Bert J. Niver, Pres., 1221 Hemphill St.; western trousers. In oper. 12,500 sq. ft. (B).

Garland — Dearborn Stove Co., R. H. Norris, Pres., Kingsley Rd.; heating & air cooler units, outdoor cooking equip. Est. date of oper. late 1961. 225,000 sq. ft.

Grapevine — Texas Steel Deck Co., John D. Spaulding, Pres., P. O. Box 757; steel roof deck units. In oper. 12,000 sq. ft. (A).

Houston — Clinton Chemical Co., Mason Piersall, Pres., San Jacinto Battleground Area; aluminum chloride. Under constr. \$250,000. (B).

Kingsville — Humble Oil & Refining Co.; gas. In oper. (C).

Lubbock — West Texas Oxygen Co., Geo. Turner, Pres., 2607 Ave. H, Box 26; liquid oxygen & nitrogen. In oper. 10,000 sq. ft. (A).

Wichita Falls — American Sporting Goods Manufacturing Co., Inc., Joe Salta, Pres., Pecan at California Ave.; sporting & recreational equip. In oper. 20,000 sq. ft.

UTAH

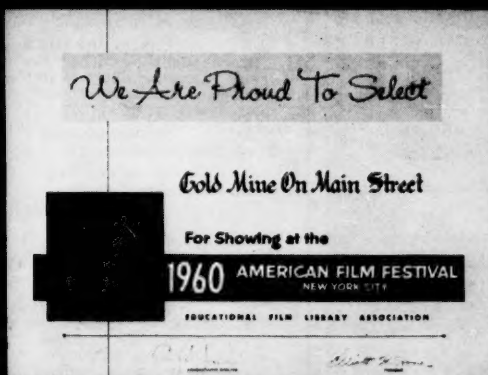
No Plants Reported.

VERMONT

No Plants Reported.

VIRGINIA

No Plants Reported.



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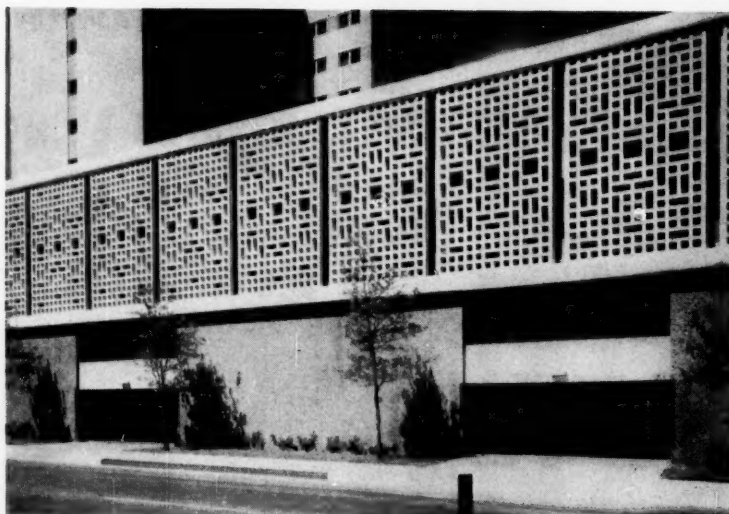
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In the past two years, these two films have won acceptance and honors given only to top films. Both were accepted for showing at the American Film Festival in 1959, an honor in itself since a relatively few films are accepted from the thousands reviewed. Also, **BLUEPRINT FOR PROGRESS** was the only American film to win an award at the 25th World Planning Congress in Puerto Rico in 1960, winning second place in its category.

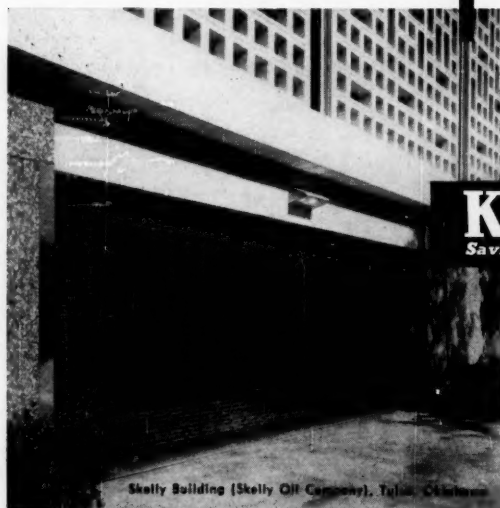
Produced at a combined cost of over \$50,000, **GOLD MINE** and **BLUEPRINT** are available at a cost of only \$250 and \$275, respectively. And for only \$25, you can have your own leader at the beginning of these films advising viewers "This film is presented in this area as a public service by (your name)." These low prices involve a small amount of money compared to the benefits you will receive in increased prestige and an improved business climate.

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All Principal Cities

NEW PLANTS

WASHINGTON

Olympia — Georgia Pacific Corp.; shipping containers. Plans announced. 10-acre site. 120,000 sq. ft. \$1 million. (C).

WEST VIRGINIA

Buckhannon — Corhart Refractories Co. (Subs. Corning Glass Works); refractory materials. Est. date of oper. Spring 1961. 30-acre site. 89,000 sq. ft. (B).

WISCONSIN

No Plants Reported.

WYOMING

No Plants Reported.

CANADA

ALBERTA

No Plants Reported.

BRITISH COLUMBIA

Richmond — Spruce Specialties Ltd.; wood burning, T. V. tubes, transformers. Plans announced. \$300,000.

Vancouver — McLennan McFeely & Prior Ltd.; wholesale hardware whse. & ofc. bldg. Plans announced. 230,000 sq. ft.

MANITOBA

NEW BRUNSWICK

NEWFOUNDLAND

NOVA SCOTIA

No Plants Reported.

ONTARIO

Ajax — E. F. Drew & Co. Ltd.; edible oil prods. Under constr. (B).

Etobicoke Twp. — Armalux Glass Industries, Inc., 17 Racine Rd.; insulated glass units. In oper. 11,700 sq. ft.

Etobicoke Twp. — Hardifoam Products Ltd., 66 Fordhouse Rd.; polyurethane foam cushioning. In oper. 20,000 sq. ft.

Guelph — Omark Industries, John I. Gray, Pres.; saw chains. In oper. 10,800 sq. ft. (C).

Guelph — Steele's Wire Springs Ltd. Under constr. 5-acre site. 22,500 sq. ft.

Kitchener — B. F. Goodrich Canada Ltd., R. V. Yohe, Pres.; tires, tubes, plastic molded prods. Est. date of compl. early 1962. 100-acre site. \$7 million. (E).

Preston — Hostess Food Products Ltd. In oper. 120,000 sq. ft. \$1 million. (D).

Scarborough — Wyandotte Chemicals Corp., Metropolitan Rd.; laundry soaps, cleaning compounds. 10-acre site. 48,000 sq. ft.

Toronto — Joe Lowe Corp., Torlake Crescent Rd.; ice cream & baking prods. Under constr. Est. date of compl. Dec. 1960. 60,000 sq. ft.

Toronto — Macotta Co. of Canada Ltd., 1190 Kipling Ave. N.; metal prods. for constr. ind. In Oper. 10-acre site. 48,000 sq. ft. (C).

Toronto — Monahan Supply Corp. Ltd., Colville Rd.; auto chem. prods. In oper. 22,500 sq. ft.

Waterloo — Snyder's Ltd., M. H. Snyder, Pres.; furniture. Under constr. Est. date of oper. early 1961. 12-acre site. 87,000 sq. ft. \$650,000. (C).

PRINCE EDWARD ISLAND

QUEBEC

SASKATCHEWAN

No Plants Reported.

FOREIGN

Brazil, Sao Paulo — Timken Roller Bearing Co.; roller bearings. Under constr. Est. date of oper. Mar. 1961. 4.4-acre site. 65,000 sq. ft. (2 bldgs.).

France, Le Havre — El Paso France-Afrique (Subs. El Paso Nat. Gas Prods. Co.) and Compagnie Francaise de Raffinage; polyethylene resins for plastics. Est. date of constr. early 1961. Est. date of compl. early 1963. \$18 million.

DIRECTED BY

Richard Edmonds ...1882-1930
Frank Gould1930-1943
William Beury1943-1955
McKinley Conway..1956

MANUFACTURERS RECORD

(IN REVIEW)



"What Enriches Any Region
Enriches The Nation"

NOVEMBER 1886

(AS ABSTRACTED MORE THAN 70 YEARS LATER)

BALTIMORE, MD.

Official Announcement

President M. E. Ingalls announces through the MANUFACTURERS RECORD this week that the Chesapeake & Ohio Railroad Co. proposes to bend all its energies toward the industrial development of the Virginias. His statements to a member of our staff appear in detail elsewhere. When it is understood that these utterances are authorized and official they take on an importance beyond that which attaches to an ordinary newspaper interview. The effect of railroad co-operation, on the lines laid down by President Ingalls, must be inevitably to create an almost continuous chain of industrial towns from Catlettsburg to Newport News, and thus within a few years to bring the Midland region east and west through the Virginias up to the same conditions of population and wealth which exist in Pennsylvania.

Railroads are the great power in material development. To render available resources in iron, coal, timber and agriculture it is necessary to have railroads. To make the most of these resources, to work them up into traffic and wealth, it is necessary that the railroads be managed in a spirit of wisdom, liberality and co-operation.

The Virginias are rich in railroads, because here the companies are vigorously aiding in development. They are joining individuals and corporations and are lending them the might of their money and organization in their industrial enterprises.

Under its present management, the Chesapeake & Ohio Railroad has jumped into the forefront of development. The modern science of making great railroad properties is to be applied vigorously and on a large scale, while the railroad will be made ready to take care of the vastly increased traffic by still further improvement in its physical condition and additions to its rolling stock.

Mr. Ingalls authorized the MANUFACTURERS RECORD to announce for the first time that he will about April 1 remove his headquarters to New York in order to be in a better position to interest capital in the development of the Virginias. This step is made necessary further by his identification with the Vanderbilt and Huntington interests, with which in New York he will be in close touch. Mr. Ingalls' opportunities for advancing Virginia interests will be in every way enlarged and improved by his removal to New York.

The MANUFACTURERS RECORD regards this interview with Mr. Ingalls as one of the most important pieces of news it has ever published. The carrying out of the plan announced will be worth many millions to the Virginias.

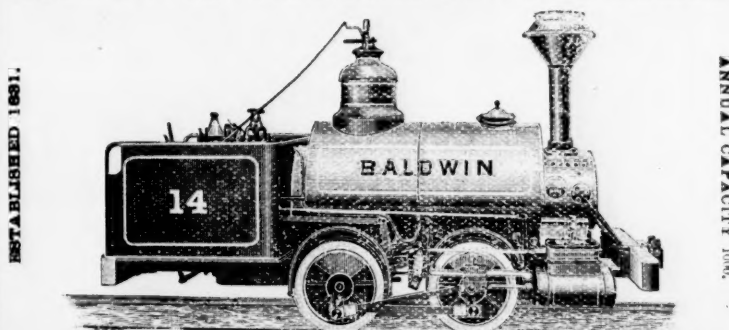
News from Abroad

Mr. Samuel R. Maclean, investment banker, of Broad Street, New York, writes to the MANUFACTURERS RECORD that he has recently returned from an extensive trip through Great Britain and Holland, visiting old investment and merchant clients, and that in very many prominent places he was "pleased to see or hear about the MANUFACTURERS RECORD," and, through having read the MANUFACTURERS RECORD for some years, he was able to answer thousands of questions relative to the various enterprises advertised in it. "Previous to the November failure of the Barings," he writes, "I aided negotiating many good American industries, also bonds of railroads, water and gas works, counties, cities, school districts and general public improvements, and a client secured a large colony of Hollanders for one of our States, who also purchased the lands they emigrated to and are happily settled upon today developing it. A London syndicate of underwriters, the active men of which are among our old clients, placed over ninety millions sterling in ten months up to 1st of August last, the half of which was for America alone."

New Handbook

One of the recommendations of the late International American Conference was that an association should be formed by all the countries represented for the prompt collection and distribution of commercial information, and that this international union should be represented by a bureau to be established at Washington under the supervision of the Secretary of State, this bureau to be charged with the care of translations and publications and with all correspondence pertaining to the international union. Soon after the final adjournment of the International Conference, Secretary Blaine organized the bureau, placing at its head William Elerey Curtis, probably the best selection that could have been made. This bureau has published its first bulletin in a volume of 288 pages, named "Handbook of the American Republics." Its numerous chapters cover a vast amount of information that will be of especial value to all who contemplate engaging in trade with any of the Southern republics. The maps of South and Central America and the charts of steamship routes and cable lines will be important aids to all students of international commerce. Copies of this book may be had by addressing Bureau of the American Republics, Washington, D. C.

BALDWIN LOCOMOTIVE WORKS



Locomotive Engines, Locomotives for Logging

Adapted to every variety of service, and built accurately to standard gauges and templates.

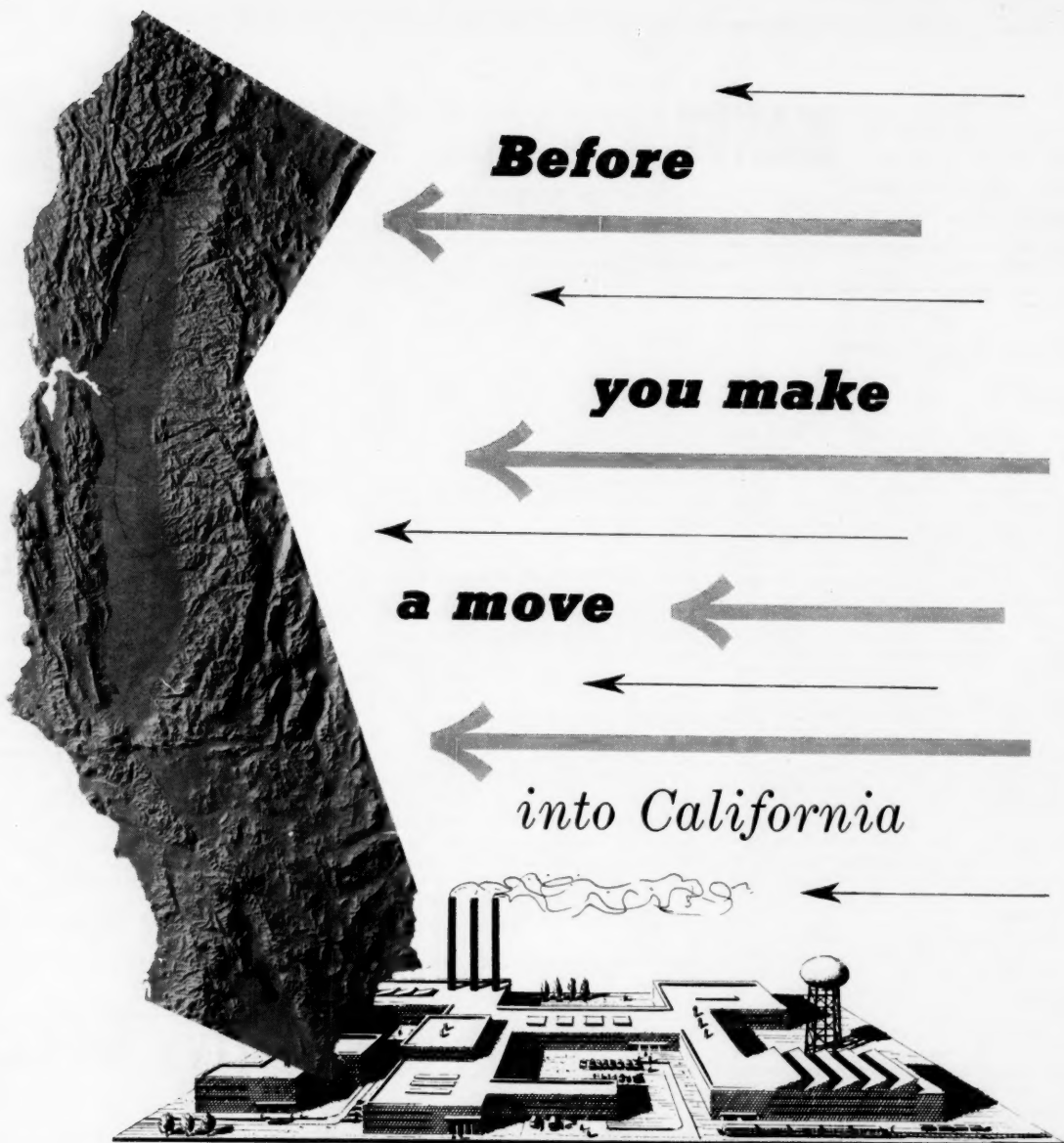
RAILROADS AND
SUGAR ESTATES.

Steam Tramway Motors, Mine Locomotives, Furnace Locomotives.

Burnham, Williams & Co., PROPRIETORS,
500 N. BROAD STREET,

Philadelphia, Pa.

In writing, please refer to Manufacturers' Record.



Consult

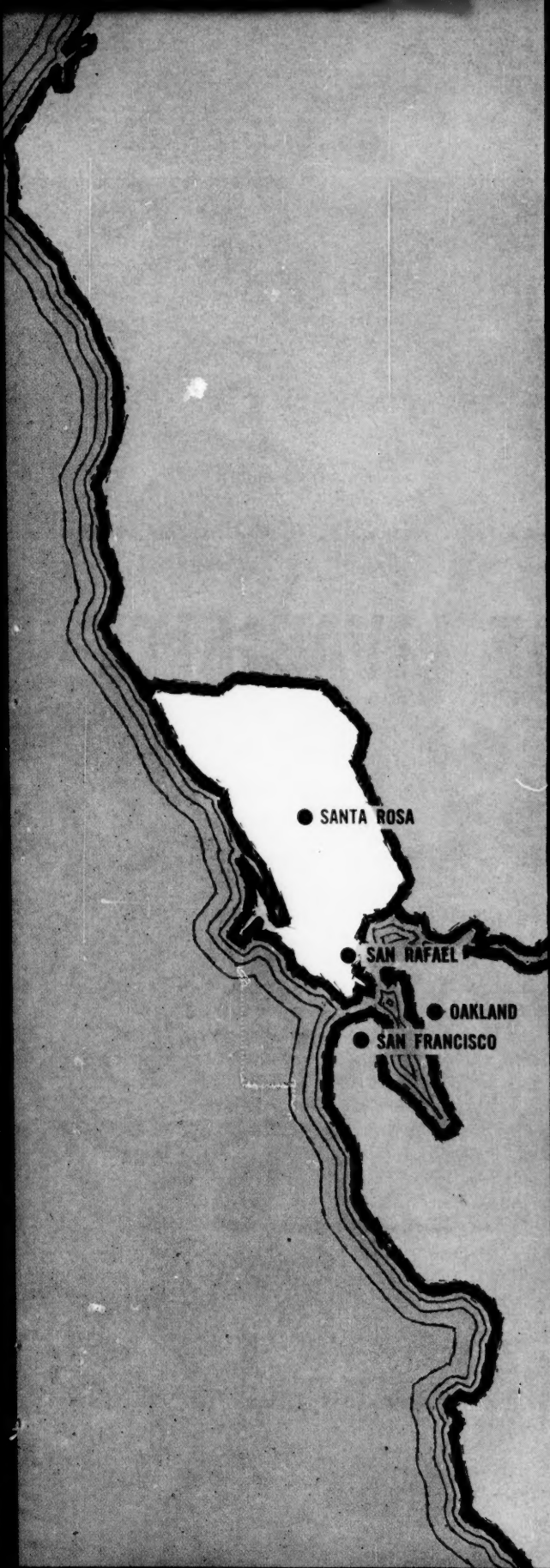
First Western Bank

AND TRUST COMPANY

Our Industrial Services Section supplies complete, up-to-date information on all phases of the location or relocation of your business in any part of California.

We welcome inquiries on sites and buildings, labor supply and wages, transportation facilities, utilities, raw materials, markets, housing—in short, all pertinent data to facilitate the smooth establishment of your business in this state.

Please address: Raeburn F. Hay, Vice President, Industrial Services Section, First Western Bank and Trust Company, 405 Montgomery Street, San Francisco.



NORTH BAY AREA



The trail of Muir Woods National Monument offers the first glimpse of giant redwoods as you enter the North Bay Area from the south. Long one of the most outstanding tourist attractions in this country, the massive redwoods typify the unusual "extras" you will find in this area.

Located north of the famed Golden Gate Bridge, Marin and Sonoma Counties make up the heartland of the North Bay Area, which offers many plus factors for industry seeking a West Coast location. In the upper right corner of the picture you can see the Richmond-San Rafael Bridge which was completed in 1956.



LAND OF LIVABILITY



The North Bay Area's mild-the-year-around climate affords participation in out-door sports during every month of the year. Here a resident is pictured getting in an after-five round of golf on one of the many courses located throughout the area.

With its massive rock breakwater and natural shelter, Bodega Bay is the center for the local commercial fishing fleet and is another of the many tourist attractions here. Deep sea fishing craft, wharves, and cliff-hung buildings give it an old world atmosphere.



The rapid expansion of the North Bay Area is a result of three major attractions. One is the unusually good "livability" of the area generated by a climate called one of the six best in the world, a wide array of tourist attractions and recreation facilities, and an historic culture and personality. The big and growing retail and industrial market area is second. And third is the availability and relatively low cost of industrial land.

ATTRACTS INDUSTRY

By Ronald K. Hill

NORTH BAY AREA, CALIFORNIA. Livability. This coinage aptly describes one of the most attractive assets of this area north of the Golden Gate Bridge and San Francisco. And here in the North Bay Area there's more space for the "gracious living" for which California is so famous.

Tourist attractions in Marin and Sonoma Counties, the heartland of the North Bay Area, are plentiful: Picturesque Sausalito with its unusual houses and numerous sail boats . . . the famous Petrified Forest . . . Drake's Bay and the Point Reyes Light Station . . . the Valley of the Moon and its vineyards . . . Muir Woods and its magnificent redwoods . . . Fort Ross with its unique Russian history . . . Angel Island and its State park . . . the Geysers, California's answer to Yellowstone . . . Mount Tamalpais and its parks and camping facilities . . . Bodega Bay and the fishing fleet . . . and San Rafael with its beautiful Spanish Mission.

And you certainly have to call the weather in this area "gracious," what with its mild winters and mild, dry summers. The climate in the North Bay Area is called one of the six best in the world

by weather experts of the U.S. Air Force and most meteorologists agree.

In addition, this area has a culture and personality which have benefited from the Spanish, English, and old Russian influences, modified by the aggressiveness of the pioneers of the early west, making this a comfortable and hospitable area.

Add the lure of the ocean and the magnetic atmosphere of nearby San Francisco and you have the reasons why "livability" is the most appropriate word to describe the primary attraction of the North Bay Area.

Industrialists Like 'Livability'

The expanding number of businesses moving into the area indicate that the industrialists think that the "livability" in this area is an extra advantage which can help them attract and keep the highly skilled personnel.

For example, Jack Yelverton, administration manager of Fairchild Semiconductor Corporation's new diode plant in San Rafael, explained, "We must have engineers and other highly technical people in our operation, so we looked for an area

NORTH BAY AREA

which could attract these people who are in a highly competitive labor market. After investigating over 20 locations within 100 miles of our research and development operation in Palo Alto, we felt that this area offered what we were looking for."

The new Fairchild plant will be a new 50,000 square foot building located on 10 acres in northern San Rafael, with a capital investment of \$3 million and will employ approximately 1,000 workers. The new plant is expected to be completed late in 1960 and, in the meantime, a pilot plant is being operated in a temporary location.

John McCullough, administrative manager of the Optical Coating Laboratory, Inc., in Santa Rosa, told us that the main reasons why this company moved here from Washington, D. C., in 1951 were the favorable climate and the community atmosphere. "Experience has proved that it was a good move," he stated, "our turnover is fairly low and we have found that the employees' company loyalty has been very good. We have employed about 65 percent of our people from this area and also have been able to attract top technical workers from outside the area."

OCLI, as the company is called, specializes in high vacuum coatings for varied applications such as anti-reflection coatings for cameras, binoculars and periscopes, durable infrared filters for space systems, cover glasses for satellite solar power systems, and color contrast display systems for flight navigation. The company is located in a new, attractive plant completed in February, 1960.

A safety equipment manufacturer, E. D. Bullard Co., in Sausalito moved here from San Francisco in 1957 to obtain more working space. The president, E. W. Bullard, Sr., commented, "When we moved here we brought 98 percent of our employees with us and over 40 percent have bought homes in the area and it's safe to say that nobody wants to move back."

A manufacturer which has plants in Sebastopol and San Rafael, the H. C. Little Burner Co., is quite enthusiastic about the "livability" in this North Bay Area. Richard Ginther, vice president of these operations, said, "The climate, living conditions, and recreation facilities have favorably influenced our employees' desire to stay with us. Larger companies will find that there is little problem in transferring people to this area."

Location, Markets Very Favorable

The favorable living conditions and climate is made even more important when you consider the

location and the tremendous market area here.

Since a great part of Marin and Sonoma Counties fronts on the San Francisco and San Pablo Bays, the North Bay Area is commonly identified with the nine-county San Francisco Bay Area. San Rafael, the county seat of Marin, and Santa Rosa, the county seat of Sonoma, are only 20 and 55 minute drives to San Francisco on modern freeways, so it is easy to see why the location is advantageous. And, chiefly because of topography, Sonoma County has been designated as a dispersal area.

A population and market report should rightfully start with the entire western market, the 11 states lying generally west of Kansas. These 11 states are within 1,000 miles of the North Bay Area and, according to U.S. Census preliminary reports, have a 1960 population of 26.9 million compared with 19.6 million in 1950, an increase of 37.4 percent (all figures are rounded). Preliminary census reports reveal that the national population rose 18.6 percent, less than half that of the western states.

California alone has a population of 15.5 million compared with the 1950 total of 10.6 million, indicating an increase of 46.6 percent. Including the nine counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma, the San Francisco Bay Area's 1960 population jumped from 2.7 million in 1950 to 3.7 million, or 33.2 percent higher. Projected estimates for the San Francisco Bay Area predict 4.8 million people by 1970 and 7 million by 1990. And population experts say that the northern part of California has grown faster since 1958 than the rest of the State.

The population increase for Marin and Sonoma Counties is even higher, with 1960 figures showing a 54.5 percent increase over 1950, 291,343 to 189,024. This is one good yardstick of the growth of this area.

Population is only half the story — buying power is equally important. "Sales Management, Survey of Buying Power" dated July 10, 1960, gives current, detailed figures on retail sales and buying power. This is the source for the following figures, which have been rounded off for clarity.

In 1959 the 11 western states had a total retail sales of \$36.5 billion and a total "effective buying income" of \$54.7 billion with a per capita average of \$1,840. (These per capita average figures will be somewhat lower than the per capita income

figures generally used by the U.S. Census, since "effective buying income" is the same as what the census calls "disposable personal income.")

California alone had retail sales in 1959 of \$12.9 billion and a total "effective buying income" of \$34 billion and a per capita average of \$2,250. The San Francisco Bay Area's nine counties had a total retail sales of \$5.04 billion in 1959 and a total "effective buying income" of \$8.6 billion with a per capita average of \$2,286.

Marin and Sonoma Counties had retail sales of \$390.8 million in 1959 and a total "effective buying income" of \$636.4 million and a per capita average of \$2,235.

With a population of 26.9 million and retail sales of \$36.5 billion within 1,000 miles, a California market of 15.5 million people and retail

during 1954, the latest detailed census figures available.

The San Francisco Bay Area Council, in its publication "A Guide to Industrial Locations," reports that building permits for 1954-1957 totaled \$366.8 million, including \$142.4 million in industrial permits. The Council also stated, "Of the nation's top 100 leading manufacturing firms, 43 operate 102 branch plants in the Bay Area. . . In the past 11 years (from 1947) a total of \$1.6 billion has been invested in 1,877 new plants and 3,610 expansions in the Bay Area."

These figures, although somewhat old, give some indication of the industrial market. With the increased growth in new and expanded plants in this area during the past six years, the industrial market likewise has increased.

Typical of the planned commercial and industrial districts is the Santa Rosa Center. The area outlined in black on the right is an industrial park which has one completed plant and one under construction. The area on the left will be a combination professional, shopping, and recreational center. A hard-surfaced, 6,000-foot runway and aircraft facilities are in operation and can be seen alongside the black line in the center.



sales of \$12.9 billion, a San Francisco Bay Area market of 3.7 million people and retail sales of \$5.04 billion, and a local market in Marin and Sonoma Counties of 291,343 people with retail sales of \$390.8 million, this area is obviously in a good location and retail market position.

The industrial market is growing too. The 1954 Census of Manufactures showed that the 11 western states had \$12.7 billion in value added by manufacture. And California alone had \$8.6 billion of this figure. The San Francisco Bay Area's nine counties had a total value added by manufacture of \$2 billion and a new capital expenditure amount of \$138.4 million.

Marin and Sonoma Counties had a combined value added by manufacture of \$45.5 million and a new capital expenditure amount of \$3.5 million

Industrial Site Picture Good

Another location factor highly favorable in the North Bay Area is the availability and prices of industrial land. Both of these counties have a development organization (see back page) which have listings of industrial sites available and the prices of these sites. A look at the sample industrial land prices in selected cities in the San Francisco Bay Area (see chart) gives an idea of the prices and an inquiry to either of these two development groups will bring detailed information.

Industrial land is available in open areas zoned for industry and also in several industrial parks. A description of six of the industrial parks in the North Bay Area depicts to some extent the opportunities available.

NORTH BAY AREA

Rohnert Park Industrial Center, Cotati: A 300-acre tract located between U.S. 101 and the Northwestern Pacific Railroad, this center is part of an integrated development, and plans include a shopping center, a professional center, neighborhood centers, and recreation parks. Zoned for light industry.

Fifer Industrial Park, Corte Madera: A 36-acre park located on U.S. 101 and Northwestern Pacific Railroad and half-occupied now. Major tenants are McGraw-Hill Book Co. and Marin Municipal Water District. Zoned for light industry.

North San Francisco Bay Industrial Park, Petaluma: A 100 acre park located on U.S. 101 and Northwestern Pacific Railroad, this site is two miles from the small Port of Petaluma which provides access to the Bay Area by water. Zoned

for light industry.

Richard W. Hanna Industrial Park, Novato: A 350-acre industrial tract located on U.S. 101 and Northwestern Pacific Railroad, this park is being developed as an integrated development of 460 acres, with residential, public park, and shopping areas planned. Zoned for light industry.

Other large industrial areas are available for light and heavy industry in both Marin and Sonoma. There is a total of approximately 8,000 acres of land zoned for industrial use in these two counties.

The availability of land has induced some companies to move out of the high-density areas to this area. For example, J. D. Christian Engineers is building a new plant in Petaluma and transferring their manufacturing operations there from San Francisco. This company produces custom-built equipment for process industry, welding equipment mostly, and wanted "room to grow."

Fluor Products Company moved from Los Angeles to Santa Rosa for several reasons, with one of the main reasons being the need of expansion space. This company produces wood cooling towers for heavy industrial applications and central air conditioning and refrigeration installations, and laminated wood beams and arches for general building construction.

Well-Diversified Economic Base

Another advantageous situation in the North Bay Area is the diversity of the economic base. The balance between agriculture and industry is good and there is a wide range of products in both.

The 1954 census reveals that Marin County had 10.9 percent of its employed in manufacturing firms and 4.9 percent in agriculture. Sonoma, with 10.9 percent of its employed in manufacturing firms and 23.9 percent working in agriculture, is definitely more agricultural but still maintains a good balance with a current trend toward more manufacturing employment.

The total value of all farm products sold in Marin in 1954 was \$11.8 million and in Sonoma the total was \$49.5 million. Marin's largest dollar producer of the farm products was dairy products with \$8.6 million and livestock added \$1.6 million. Crops and poultry came to less than \$1 million each. Sonoma's breakdown of farm products sold was \$19.2 million from poultry, \$13.5 million from crops, \$12.4 million from dairy prod-

INDUSTRIAL LAND PRICES For Selected Cities in the San Francisco Bay Area†

City	Price Per Acre	
	Low	High
Alameda	\$23,300	\$46,600
Burlingame	27,500	46,700
Corte Madera*	3,000	12,000
Menlo Park	22,500	45,000
Mountain View	7,650	11,000
Oakland	20,550	34,750
Petaluma*	2,500	5,000
San Jose	8,700	20,700
San Rafael*	10,000	30,000
Santa Clara	8,400	17,500
Santa Rosa*	1,250	3,250
Sunnyvale	8,450	16,350

(*These cities located in either Marin or Sonoma Counties.)

†Source: "A Guide to Industrial Locations in the San Francisco Bay Area", published by the San Francisco Bay Area Council. The prices are the averages quoted for January, 1958.

for light industry.

Freitas Industrial Park, San Rafael: A 250-acre industrial tract with 70 acres now being developed, located on U.S. 101 and Northwestern Pacific Railroad, this site is part of a planned integrated development of 750 acres, including marina residential areas. Major tenant is Fairchild Semiconductor Corporation, whose plant is now under construction. Oriented for electronics and research and development operations. Zoned for light industry.

Santa Rosa Center, Santa Rosa: A 300-acre industrial park located on Northwestern Pacific Railroad and U.S. 101, this center is planned as an integrated development with a professional center, shopping center, recreation area, and now has a completed air strip with a 6,000 foot, hard-sur-



Fairchild Semiconductor Corporation's new diode manufacturing operation in San Rafael is one example of the industries locating in the area, creating a favorable economic balance. This is the temporary quarters for Fairchild; a new, 50,000 square foot building is now under construction. Ultimately, more than 1,000 workers will be employed.

Poultry and poultry products account for a big share of the economic base in the North Bay Area, as do dairy and dairy products. Shown here is the headquarters of Bundesen Brothers Hatcheries in Petaluma, which is called the "Egg Basket of the World."



This area is known for its fine wines, including Sebastiani and Italian Swiss Colony. Pictured here are two young tourists with Frank H. Bartholomew, owner of the famous Buena Vista Winery and current president of United Press International. The wine press, incidentally, is more than a century old.

NORTH BAY AREA

ucts, and \$4.1 million from livestock.

Of course, this area is famous for its vineyards and wineries but wines are classified under manufactured products. Some of the biggest names in wines are located in the area, Italian Swiss Colony and Sebastiani included.

On the other side of the scale, there is a wide variety of manufacturing firms which produce a multitude of products, from tiny diodes to huge laminated wood arches and from small precision screws to big concrete pipes.

Sonoma's leading manufactured goods are food and kindred products and lumber and wood products. Marin has a greater variety and food and kindred products and fabricated metal products have only a slight lead over aggregates.

Labor Source 'Excellent'

Although there is not a large amount of unemployment in this area, the labor force has certain characteristics which are favorable to the incoming industrial or commercial firm. First, there are a large number of commuters especially in Marin County, who would be likely to welcome employment nearby. Estimates of the number of commuters range from 20,000 to 30,000. Second, there are some seasonal workers who would be available for full time work and, third, there are a large number of housewives who would enter the work force if the opportunity presented itself.

Interviews with some of the employers in the North Bay Area reflect a satisfaction with labor availability. McGraw-Hill Book Company, Inc., recently selected Corte Madera as the site for its western sales offices and distribution facilities which had been located in San Francisco.

Harry P. Graves, vice president and manager of McGraw-Hill's Pacific District, explained, "We surveyed both sides of the bay as far south as San Jose and as far north as San Rafael, and we found an excellent source of labor supply in the North Bay Area. We have been hiring from this area and have had many requests for jobs from people in this area and found that they, generally, were high level people."

The plant manager of the new plant of J. D. Christian Engineers in Petaluma, Joe Gilmore, commented that he has been well pleased with the availability of "good, well-experienced men" in this area.

The second question which is generally asked about potential employees is, "How easily are they trained?" This question was asked of C. R. Le-Menager, market manager of Fluor Products Com-

pany at Santa Rosa. "The supply of mill workers is much better here than it was at our former location, not only the quantity but the quality of the worker. Generally speaking, they are easily trained."

Richard Ginther, vice president of H. C. Little Burner Company in San Rafael, was quite emphatic: "The workers in this area are above the national average in skill and we have very few problems in training."

Another executive, Earl J. Hupp, controller of Rockport Redwood Company in Cloverdale, answered the question this way, "Our labor situation is excellent. We have very little turnover which reduces our training problem greatly and we have found that these people in this area learn quickly."

Labor-management relations are, for the most part, satisfactory. Mr. Ginther also spoke up on this point. "We've enjoyed excellent labor relations during the three years we've been here," he said, "and we deal with two separate labor unions."

Union contracts are usually for periods for several years and there have been relatively few labor stoppages in this area, except those that originate from outside the area, the State of California Department of Industrial Relations advised.

Trades that are mostly unionized are construction workers, food checkers, and garment, cannery, shoe and communication workers. Culinary workers, machinists and auto mechanics are generally organized. Unionization is slight among retail trade and office workers.

There is no "right to work" legislation in California. Legislation does provide a minimum unemployment benefit of \$10 and a maximum of \$40 per week. There is no dependent allowance and the total eligibility period is 26 weeks. Workmen's Compensation provisions allow a maximum payment of \$50 a week.

Assistance in employing workers can be obtained from the California Department of Employment, which maintains complete files on available personnel. This department is equipped to set up recruiting offices in any area to provide an employer with the skilled help needed.

Unique Power Source

Served by the Pacific Gas & Electric Company, the North Bay Area has both gas and electric power in abundance, with rates comparable to most areas of the country. And the North Bay Area has a unique source of electric power—the nation's only geothermal plant, using natural



One of the three operations of its type in the world, this PG&E electric generating plant at Geyserville is powered by natural steam brought from deep within the earth through wells. The steam can be seen rising from the well area a quarter-mile away (left center in the background of the picture).

steam from within the earth to generate electricity.

PG&E's pioneer commercial geothermal station at The Geysers in northeast Sonoma County, officially opened in September, 1960, is a 12,500-kilowatt plant with a capacity adequate to serve the electric power needs of a community of 20,000. There are only three plants of this type in the world.

Uniqueness is common-place with this progressive utility company. PG&E and General Electric built the world's first privately-financed atomic power station at Vallecitos.

Serving two-thirds of California, PG&E has over five and one-half million kilowatts of electric capacity, has served nearly two billion cubic feet of gas on a peak day, and is building a pipeline from Canada for more gas.

These points are brought up to illustrate the type of gas and electric service you'll get in the North Bay Area. If you visit PG&E's North Bay Area Division office in San Rafael, you'll be graciously received by Elias S. Day, division manager. And you'll be quickly provided with rates

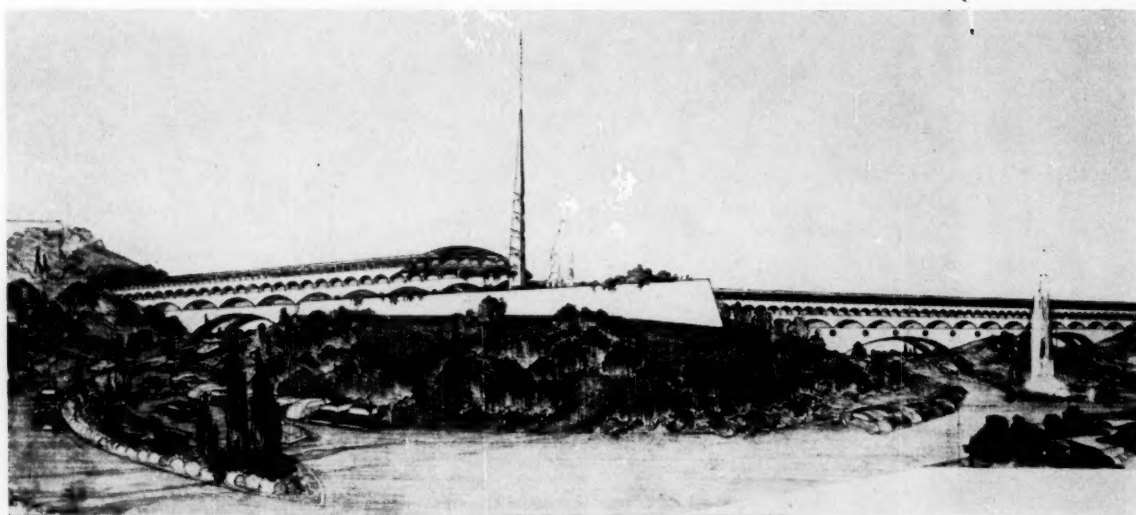
for your specific needs and be offered the complete services of that office in your location investigation.

The North Bay Area is provided with rail service by Northwestern Pacific Railroad, a subsidiary of Southern Pacific Railroad, and Petaluma-Santa Rosa Railroad. Six regularly scheduled truck lines provide daily pick-up and delivery service in the area, plus a number of large contract carriers provide special services. Overnight service is available on truck loads to points 500 miles distant; on small lots, 250 miles.

Frequent through and local bus service is provided by Pacific Greyhound Lines, with small package delivery service at nationally comparable rates. Pacific Airlines operates scheduled hourly service to major California metropolitan centers from Sonoma County airport at Santa Rosa and San Francisco and Oakland provide complete commercial air service to all parts of the world.

Mr. Bullard, of E. D. Bullard Company, said that his company has no problems with rail service and that "truck service is very good." Mr.

NORTH BAY AREA



An artist's rendering of the new county government center being constructed just north of San Rafael. This structure, one of the last projects designed by the late Frank Lloyd Wright, will house the Marin County government offices.

Graves of McGraw-Hill stated that trucking facilities were better than the other areas they investigated.

Of course, San Francisco is one of the world's great ports and ships of all nations tie up there and in Oakland and Richmond, Pittsburg and Redwood City. Barge facilities in Petaluma and San Rafael afford water transportation to these ports.

Government Units 'Efficient'

The governmental units in the North Bay Area are generally council-manager type operations and, based on services provided, tax rates and bonded indebtedness, it can be generally stated that these bodies are efficient.

Both the Marin and Sonoma County governments are governed by an elected Board of Supervisors, with a County Administrator responsible for administrative duties.

A look at the county seats of Marin and Sonoma provides a more detailed picture. Santa Rosa, Sonoma County seat, has a council-manager type of government and operates a 33-man police force, a fire department staffed by 41 men, and a sewerage system with a 5 million gallon per day capacity. Water in Santa Rosa is supplied by the Municipal Utility District, which is capable of delivering 14.4 million gallons per day. Bonded debt of the city is \$777,500 and the total tax rate is \$7.838 with an assessment of 30 percent of fair market value.

The total tax rate in an unincorporated area of

Sonoma County is \$6.10, and there is a total assessed valuation for 1959-60 of \$236.8 million.

San Rafael, Marin County seat, also has the council-manager form of government and operates a 33-man police force, a 38-man fire department, and a sewerage system with a capacity of 3 million gallons per day. Water is supplied by the Marin Municipal Water District with a maximum pumping capacity of 30 million gallons per day. This city has no bonded indebtedness. The total tax rate is \$7.38 and assessment is 23 percent of fair market value.

The total tax rate in an unincorporated area of Marin County is \$6.05. The total assessed valuation in 1959 was \$218.4 million.

California levies a corporate franchise tax of four percent on net income and a retail sales tax of three percent, but no property tax has been levied since 1915, although the State is empowered to do so.

One interesting aspect of the local government units in the North Bay Area is their cooperativeness with industrial development programs and with new and existing industries. Mr. Day of PG&E explained, "Both Marin and Sonoma support the counties' industrial development groups. Marin County contributes 50 percent of the budget of the Marin Industrial Development Foundation and retains no control over the activities of this independent organization. Sonoma County is the sole supporter of the Sonoma County Industrial Development Board."

San Rafael city manager Dan E. Andersen, commented, "Our City Council is very interested in attracting new industry and I believe that the new Fairchild plant is one good example of the cooperation on the part of the City Council and the City Planning Commission."

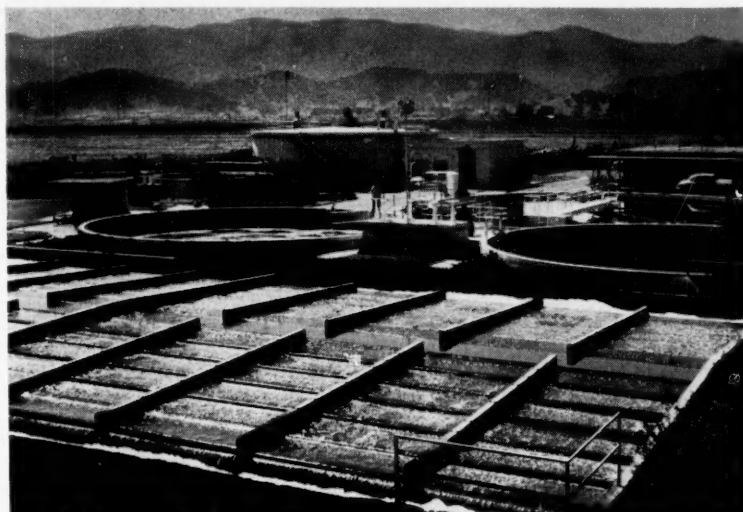
Another testimonial for one of the local government groups came from H. Koch & Sons, Inc., a manufacturer of Fiberglas luggage and cases and special products for the armed services. This company moved to Corte Madera from San Francisco in 1954. "The Corte Madera Council was very helpful and cooperative in checking for suitable locations for us," advertising and public relations manager William Parker explained, "and the relations between the council and the company have continued to be excellent."

Building contractors and construction firms are available for most types of construction work. There are adequate machine shops and non-ferrous metal foundries located here. Warehousing facilities are limited, but adequate for small operations.

Joe Gilmore, plant manager of J. D. Christian Engineers in Petaluma, reports that his company has had "very good service from local businesses who deal with us." A newcomer from Boise, Idaho, Mr. Gilmore added, "My personal experience with consumer services such as financing and so forth has also been good."

The communications industry includes four daily newspapers and ten weekly papers, and five radio stations. There are no television stations in either county because of the excellent re-

This modern sewage disposal plant serves the Novato area and is typical of the current modernization of the government services in both Marin and Sonoma Counties.



Business Services 'Very Good'

Complete business services are available in quantity and quality in the North Bay Area.

One of the more important services, the banking institutions are above average, with branches of California's largest banks located in both counties. The total deposits of the two counties were \$276.9 million in 1957, which gives an idea of the size of the banking industry.

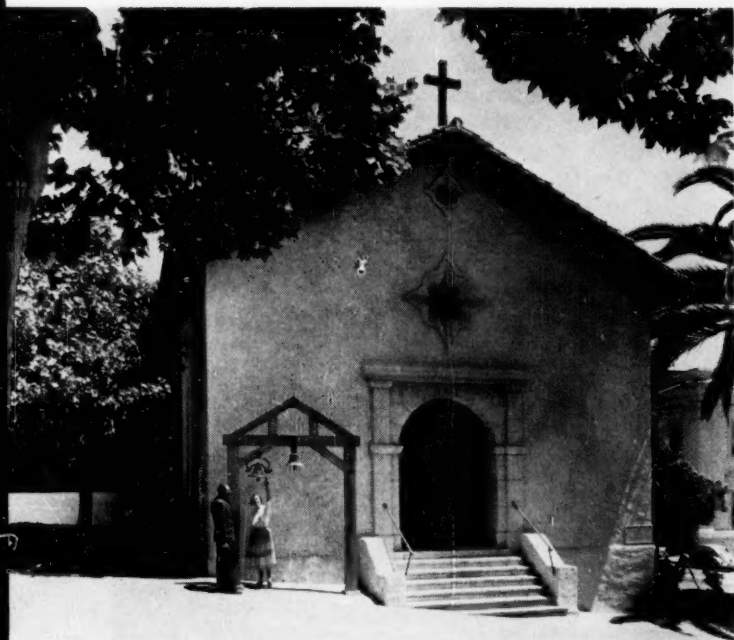
The census figures of 1954 reported 287 wholesale trade establishments, 363 manufacturing firms, and 1,367 service trade units in the area. These companies provide a large number of services and products for both commercial and industrial operations. And the 2,067 retail outlets furnish a complete array of shopping facilities.

ception of the eight stations in the San Francisco Bay Area, which include KQED, a well-known educational station.

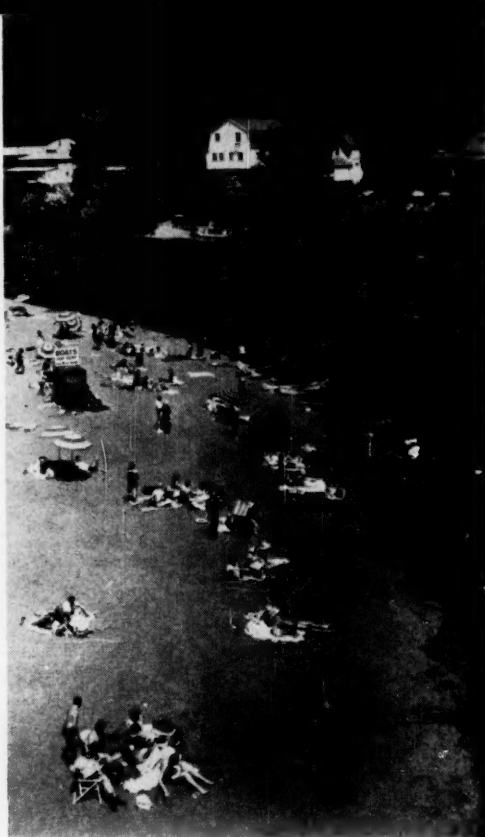
Pacific Telephone and Telegraph Company furnishes complete service to the area including direct distance dialing. There are over 100,000 commercial and residential telephones in the area. Western Union provides complete telegraph service. Mail service is satisfactory throughout the area.

Community Facilities

Housing facilities in the North Bay Area are adequate and the latest census figures, 1950, showed 68.5 thousand dwelling units in the two counties with 62.6 percent occupied by the owner. In 1950 the median value of the homes in Marin



A colorful link with this area's unique history is the restored Mission San Rafael Archangel at San Rafael. The original mission was built by the Franciscan padres in 1817. The present mission houses a chapel, a sacristy, a visitors' gallery, and a historical museum.



Newly developed Big Sandy Beach on Russian River at Monte Rio is one of the many recreation attractions in the North Bay Area. Pictured here is a typical crowd of residents and vacationers enjoying a cool dip in the river, which meanders through Sonoma County to the coast.

County was about \$12,000 and in Sonoma about \$10,000. Residential units are available in the \$13,500-\$17,500 class in most parts of the area and new subdivisions are being developed rapidly.

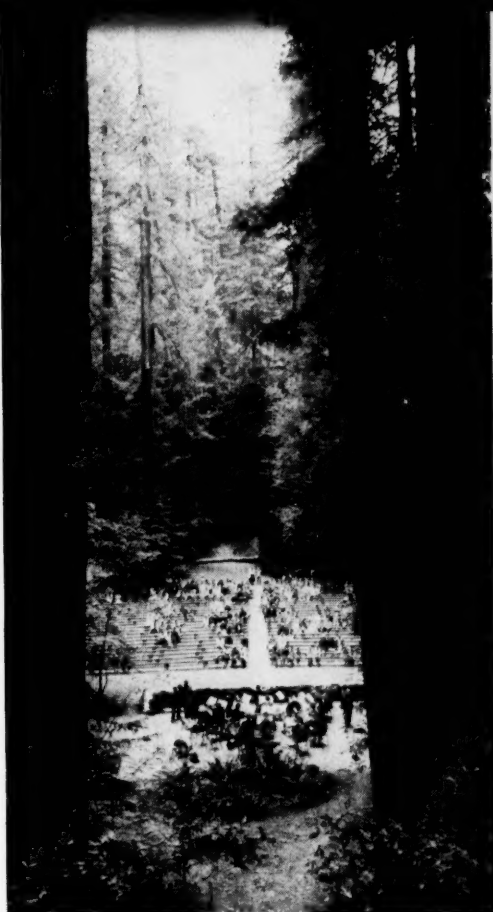
Sonoma has eight general hospitals with a bed capacity of 666 and 11 rest homes and nursing homes with 107 beds, with 184 doctors and 79 dentists serving the county. Marin has three general hospitals which have 268 beds; an expansion of 136 beds is planned by 1962. There are also three convalescent hospitals with 154 beds and an additional 48-bed facility is planned. There are 240 doctors and 86 dentists practicing in the county.

The two counties' public schools are rated high compared to the national average and they include the following number and enrollment: 117 elementary schools, enrollment of 44,048; 14 high schools, enrollment 19,206; and two junior colleges, enrollment 2,632. A new four-year State college has been announced for Cotati, with an initial budget of \$350,000 and a slate of 50 courses, which will be expanded each succeeding year for four years.

In addition, there are a wide range of private schools including day nurseries, elementary schools (including 12 Parochial schools), nine high schools, 4 seminaries, and one college. Trade schools include the usual secretarial and business schools. Within 150 miles twelve universities and colleges are located, including the famous University of California at Berkeley and equally famed Stanford University at Palo Alto.

Thirty denominations are represented by the churches of the area and most have excellent youth programs and sponsor a variety of social activities for their members.

The wealth and variety of natural and planned recreational facilities are one of the major attractions of living in the North Bay Area. Water sports — boating, swimming, water skiing, and fishing for everything from trout to tuna, clams and abalone — are pursued in the San Francisco Bay, the Pacific Ocean and the Russian River, and various lakes and streams. Many beautiful camping and picnic spots are found along the streams, lakes and beaches. There are 15 state parks and



A few miles north of Guerneville is Armstrong Grove, a state park since 1934. One of its features is a natural outdoor amphitheater with a seating capacity of 4,000 and surrounded by giant redwoods. A spacious community house is located nearby and is equipped for use of the community organizations in the area.



With the Pacific on the west and San Francisco Bay on the east and south, the topography and location make boating one of the area's most popular forms of recreation. Many persons, especially in Marin County as shown here, make their homes a combination living and private dock facility.

historical monuments in the two counties and several provide camping and picnic areas, with all facilities available.

Recreational departments offer supervised sports such as softball, basketball, little league baseball and many others. There are varied special interest clubs for gardeners, square dancers, coin and stamp collectors and many others.

The temperate climate makes outdoor recreation possible every month of the year. Excellent hunting is available for deer, ducks, quail, pheasants, doves, and other small game. Winter sports of all kinds are available at the resorts in the Sierra Nevada including Squaw Valley of 1960 Olympic fame, which is a half-day's drive from here.

San Francisco offers professional football and major league baseball and many other recreational opportunities such as opera, ballet, and the theater. Some of the tourist attractions have already been mentioned, and a check of a local tourist guide will reveal many more.

Unique History

The North Bay Area is one of the few areas in this country that can claim over 400 years of history, marked by its multi-national background.

"Historic" here is synonymous with the romantic annals of the pioneering and taming of the fascinating west. From the middle 1500's, when Juan Rodriquez Cabrillo raised the banner of Aragon and Castile to proclaim the region a Spanish domain, to the early 1900's, the North Bay Area has been uniquely spotlighted in the struggles by varied world powers for control of this beautiful country.

Although the Spanish were the first in the area, it wasn't long (1579) until Sir Francis Drake claimed the region for Queen Elizabeth and England. This regime lasted until emissaries of the Imperial Russian Czar raised the Russian colors in the area in 1811. For a year prior to 1823, the flag of Iturbide's short-lived Mexican Empire flew over this region until the tri-color of the Mexican Republic claimed the entire state.

California staged a bloodless but successful rebellion in June, 1846, and the Bear flag flew tri-

NORTH BAY AREA



This picturesque chapel was built by Russian fur traders who established Fort Ross in 1812 and remained in the area until 1841. Ruins of the old fort—high stockade, two blockhouses, a tiny chapel, and a commandant's house—were restored by the State and are maintained as a tourist attraction.

umphantly over the area for less than a month when Commodore Sloat claimed California for the United States on July 7, 1846, ending the parade of seven flags which flew over the region.

This area is the home of General M. G. Vallejo, early-day Commandante General of California, who was one of the pioneers of the wineries in this area. These wineries were given an added boost by the Gold Rush, and it is said here that the rich Forty-Niners would have nothing but the best Sonoma Valley wine.

Here the Hungarian Colonel Agoston Haraszthy, called the father of California viniculture, looked over General Vallejo's vineyards and started his own vineyard in 1846. Later, he helped organize the renowned Buena Vista Vinicultural Society. This society has been re-incorporated and today, under the leadership of the owner of the Buena Vista Wineries, Frank Bartholomew, presi-

dent of United Press International, the old society is flourishing.

Here is the home of the Gravenstein Apple . . . and Luther Burbank's famed home and gardens . . . and Jack London's ranch. In this area are the old roads once haunted by Black Bart, the versifying stagecoach robber.

Here are the beautiful Spanish Missions which, for the most part, have been kept in repair and are still an active part of community life.

These briefs on the history are included to show some of the culture and personalities that this area is heir to. And the romantic past has helped set the stage for a unique and comfortable way of life in an historic setting.

Business Climate Spawns Expansion

Today this area has thrown off its old aloofness toward industry and has welcomed industrial concerns warmly. The rapid pace of industrial ex-

pansion here is valid proof of a good business climate and interviews with industrialists in the area substantiated this supposition.

The president of Alcon Products, a manufacturer of precision screw machine parts in Sonoma, Al Wright commented, "We've been here since 1953 and the attitude of the community toward us couldn't be better. Everyone involved has been most cooperative."

Mr. Bullard, president of E. D. Bullard Company in Sausalito, talked of the changing attitude toward business, "When we first came here, some people resented industry coming into their town,

but now this attitude is changing and is becoming more practical because people are beginning to realize that a balanced tax base is best."

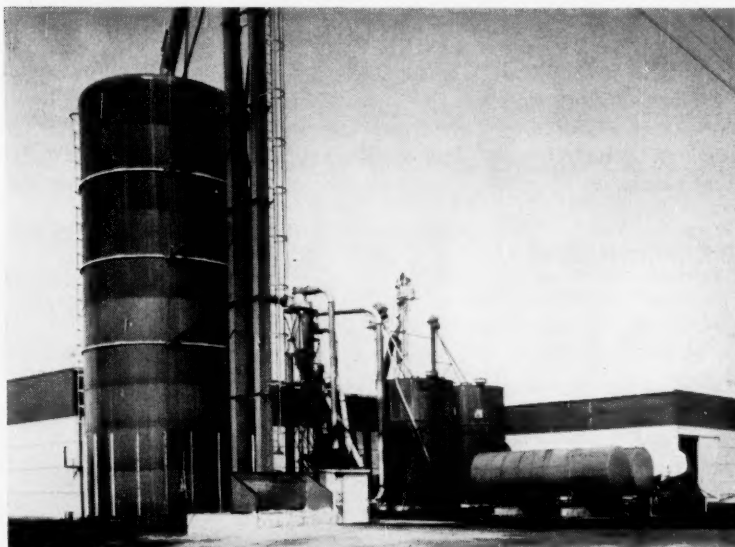
One of the reasons that the Fairchild plant was located in the North Bay Area was because of the good business climate. Mr. Yelverton explained, "We looked for a location where we would be welcomed as a business and we found this true here in San Rafael."

"Public opinion has changed," Mr. Ginther of H. C. Little Burner Company stated, "there is a very aggressive program to bring in new industry and the public is supporting it."

This industrial safety equipment manufacturer, E. D. Bullard Co., moved to Sausalito from San Francisco in 1957 to obtain more working space. The president explained, "Ninety-eight percent of our employees came with us and about 40 percent bought homes in the area. It's safe to say that nobody wants to move back."



Another unique operation in this area is this Fersolin Corporation plant that converts ordinary waste sawdust into a nutritious organic fertilizer. The owner said that this is the only plant in the U. S. capable of converting sawdust into a complete, balanced plant food and soil conditioner, a product called Loamite.



NORTH BAY AREA



PG&E's North Bay division manager Elias S. Day (seated) discusses development plans with (left to right) ID's assistant editor Ronald K. Hill, Sonoma County Industrial Development Board director William M. Harrison, and Marin Industrial Development Foundation manager Carroll A. Snyder. Hill, author of this report, has had six years experience in the insurance and investment fields and formerly was a business report writer for Dun & Bradstreet, Inc. He is a business administration-journalism graduate of Georgia State College.

Mr. Parker of Koch Luggage said that his company was more than satisfied with its move from San Francisco to Corte Madera. "The Corte Madera Council and everyone involved has been most cooperative. We like the business climate here."

J. D. Christian, president of J. D. Christian Engineers, said, "Where we have bought (Petaluma) is really close to San Francisco, when you consider the time one can make on the freeway. The area is relatively uncongested and we feel that the economic status of your city is such that you welcome us heartily and that we are not just another plant."

ID Experts Helpful

One of the main reasons why the business climate has improved so greatly is because of the competent industrial development people in the area. W. M. (Bill) Harrison, Director of the Sonoma County Industrial Development Board, and

Carroll A. Snyder, executive vice president and manager of the Marin Industrial Development Foundation, have provided leadership in their respective counties for sound development programs. And both have been successful to a great extent. These two are well-versed on their areas and can supply you with specific data relative to your location needs.

Elias S. Day, division manager of PG&E, is also involved in development work to a lesser degree, but not in a less professional manner. He works closely with Mr. Snyder and Mr. Harrison and he knows his division well and can supply you not

only with gas and electric power rates, but with information on locations in the area. Mr. Day works closely with John S. Walsh, Manager of Area Development for all of PG&E's territory, and you can rely on PG&E's development department to provide you with correct information on site selection problems.



CONSIDERING A RURAL PLANT SITE?

See what a widely traveled Washington geographer has to say about the feasibility of small towns and the countryside as plant sites. For the company not dependent on urban facilities and services, a rural location offers plus values that may add up to more efficient operations.

By Lloyd D. Black

Are small towns and rural areas suitable for industrial plants? Which industries are now located in such places? Is there a tendency for manufacturers to seek out smaller cities and towns? Why were the smaller towns chosen? What are their advantages and disadvantages for industry? What are the prospects for increased industrial development in rural areas? Although comparable quantitative trend data on a national basis are lacking, there is much evidence favoring small towns as locations for industrial plants; and examples of successful small town economic development are increasing.

The focus of this discussion is upon smaller cities and towns outside metropolitan areas. The appeal of suburban cities and towns is well known, and many large plants as well as smaller ones locate in such areas. The attractiveness of small towns in rural areas, however, is not generally understood. Manufacturers who have ventured into these places have been pleasantly surprised to find efficient labor, generally lower costs and rewarding living conditions. The greatest advantage is an available supply of trainable, productive and low-cost labor.



The Olin Mathieson aluminum plant near Clarington, Ohio, combines cheap Ohio River water transportation and power rates based on water-borne coal with a peaceful, secluded setting.

Due to the automobile and the changed habits of rural people associated with "agribusiness," the differences between "rural" and "urban" have in recent years become less distinct. In discussing industrial development in rural areas, we are, in effect, dealing with industrial development in towns of less than 10,000 people and their hinterlands. In many cases, the workers in the larger plants are farmers or ex-farmers who drive up to 65 miles each way to work in a factory or mill.

In rural areas the problem is underemployment rather than unemployment, and the degree of either one cannot readily be determined. Although rural underemployment has existed for many decades, the condition has been accentuated by the impact of technological and economic innovations in agriculture which have made many farm units obsolescent or uneconomic. In 1900 one farmer fed 7 people, whereas in 1958 one farmer fed 23 people. This remarkable increase in farm efficiency has rapidly compounded

RURAL AREAS

the problems of rural areas, especially where small units and marginal land prevail.

A recent forecast of manpower requirements for the next decade indicated that farm employment will drop more than 15%. The needs of rural areas will thus become greater than ever before. The development of off-farm job opportunities — principally through small industries and tourism and recreation and related service industries — would appear to be mandatory. Along with the development of jobs must come improvements in education (especially non-agricultural vocational training), in health and sanitation, in community facilities and other social and economic conditions.

In a speech last year, Winthrop Rockefeller, Chairman of the Arkansas Industrial Development Commission, summarized the rural development problem in this manner:

"The experience I have gained no doubt confirms a conclusion reached by thousands of farmers as well as farm economists — namely, that, by and large, the 40-acre farm is becoming increasingly rare as an economic unit . . . The owners of small farms, often logically and always understandably, do not want to abandon the land which has been owned by their families for generations. Yet they are faced with the alternatives of selling and moving to more populated areas at a fi-

nancial loss or of finding outside employment to supplement their meager farm earnings. The latter alternative is the hope of a large majority of these people — a hope that should be sustained."

The decline in farm labor requirements thus has made available a large labor supply eager to engage in non-farm occupations. While some of the people are older workers, a large number are recent high school graduates who soon move to the big cities if jobs are not available. This is an opportunity for manufacturers willing to consider small town and rural area locations.

Industries In Rural Areas

The Office of Area Development has made special Univac tabulations of unpublished data from the 1954 **Census of Manufactures** to show the distribution of the 446 types of manufacturing industries by standard metropolitan area (SMA) and non-standard metropolitan area (non-SMA), by five categories of size of plant, and by size of city or town.

Although nearly three-quarters of all manufacturing (72.9 per cent in 1954) takes place within SMA's, 74 industry types have more than half of their total employment in plants located outside of SMA's. The breakdown of these 74 industries is:

The Office of Area Development has prepared lists of the 100 least urban-oriented industries and the 100 most urban-oriented industries,

copies of which are available upon request to Victor Roterus, Director, Office of Area Development, U. S. Department of Commerce, Washington 25, D. C.

The preponderance of employment is in plants with fewer than 20 employees and in towns of under 2500. Where employment falls in larger plants (20-99 and 100-499), the town size is usually larger (2.5-9.9 or 10.0-49.9). In a few cases, however, very large plants (1000 plus) show majority of employment in places under 2500.

Further analysis of employment distribution will show that in most cases the plants located in places of under 2500 are near towns of larger size whether within SMA's or outside SMA's. In only a few industries, notably lumber and wood products, are establishments away from towns.

Do Manufacturers Seek Out Smaller Cities and Towns?

The answer to this question is emphatically yes. One mid-western state reported that 50.1% of the nearly 2,000 new industries attracted since 1945 had located in towns with a 1950 population of under 10,000. The experience of Arkansas, Kansas, North Carolina, Virginia and many other states is similar. A special report on **Why Big Industry Is Going "Small Town"** (U. S. News and World Report for December 21, 1959) provides additional evidence from Florida, Kentucky, Vermont and middle western states. It should be pointed out, however, that many industries are still oriented toward large cities. If they moved from congested urban centers, they relocated or built expansions in the suburbs within metropolitan areas.

In general, the industries seeking smaller cities and towns are "foot-loose" industries — those without stringent raw material, market or labor requirements. Some locate in response to certain local raw materials such as minerals, forest products or agricultural products. Others are seeking to escape from city congestion and to capitalize on small town living.

Disadvantages of Rural Areas for Industry

It is dangerous to generalize on this subject because plant location

NUMBER OF 4-DIGIT INDUSTRIES WITH MORE OR LESS THAN 50% OF THEIR EMPLOYMENT INSIDE SMA'S

Major Industry Group	Total No. of 4-digit industries	More than 50 percent	Less than 50 percent
Food and kindred products	43	32	11
Tobacco manufacturers	4	3	1
Textile mill products	32	23	9
Apparel and related products	41	36	5
Lumber and wood products	18	6	12
Furniture and fixtures	15	14	1
Pulp, paper, and products	12	8	4
Printing and publishing	16	16	0
Chemicals and products	41	31	10
Petroleum and coal products	7	6	0
Rubber products	4	4	0
Leather and leather products	12	9	3
Stone, clay, and glass products	28	18	10
Primary metal industries	19	17	2
Fabricated metal products	30	30	0
Machinery (except electrical)	41	40	1
Electrical machinery	21	19	2
Transportation equipment	14	13	1
Instruments and related products	10	10	0
Miscellaneous manufactures	38	37	1
	446	372	74

decisions must be considered on the basis of requirements of a single plant and company in a given 4-digit individual industry. Broad generalizations concerning locational requirements of an entire industry group are virtually worthless.

According to Ronald H. Reifler, of Fantus Factory Locating Service (see ID: June 1958), the first decision for a firm seeking a new location is to decide whether to locate in a metropolitan area or a non-metropolitan area. He states that, "If this problem can be solved early in the search, much waste motion can be eliminated. In addition, the prospect of a costly false move can be eliminated quickly."

In general, the disadvantages of rural areas can be summarized as a lack of facilities and skills. This means such things as adequate schools, hospitals, hotels, utilities, municipal services, transportation, cultural institutions and recreational outlets. The lack of skilled labor has often been cited as the greatest single disadvantage of rural areas. Experience of many firms that have located in small towns refutes this statement. While it is true that engineering and scientific skills may be lacking, other skills are present or can be readily provided through a brief period of training.

A further disadvantage is the difficulty encountered by small communities in selling themselves as potential industrial locations. Lack of funds, manpower and know-how often prevents small communities from putting their best foot forward in contacting and dealing with industrial prospects. By taking advantage of the assistance offered at State and Federal levels, this situation can largely be remedied, as in the case of the Arkansas Industrial Development Commission which recently inaugurated a preparedness program for the towns of Arkansas, upon successful completion of which the Commission would refer industrial prospects.

The plus factors may be summarized as greater labor productivity, lower taxes, more space and cheaper land. In addition, there are certain intangibles such as a desire for country living or a desire for a location well dispersed from potential targets for guided missiles.

According to Reifler, "... the small town can be a veritable gold mine of productivity for the company which can justify such a location on other points." Some of the characteristics of firms which can best profit by locating in a smaller area are as follows:

Require fewer skills at the outset;
Are willing to train a larger proportion of their labor force;

Are faced with low profit margins in their industry and must keep out-of-pocket labor costs at a minimum;

Are able to keep inventories on hand for production runs — rather than relying upon hand-to-mouth purchasing;

Deliver to customers largely at either end of the one or two main rail, truck, water or air routes served by the town;

Do not find it necessary to hire and keep top executives (sales, accounting) and professional men such as engineers, physicists, mathematicians, attached closely to the manufacturing facilities (major exception: a university town);

Prefer the benefits of hiring employees who live closer to their work and who have more free time than can be provided in the large city.

Prospects for Increased Industrial Development

The many factors that bear on this question may be grouped under seven headings:

1. Population pressures. The United States now has 180 million persons and is expected to have 215.8 to 243.9 million by 1975 (according to the lowest and highest Census Bureau estimates). Although many rural low-income counties lost population between 1940 and 1960, many other rural counties gained. It is inevitable that the spaces between large metropolitan areas will have to become more densely settled in order to accommodate the vastly expanded population of the country.

2. Desire for country living. One of the spectacular phenomena of the past decade has been the rapid movement of people from the central city to "suburbia" and beyond to "exurbia." The trend to areas still more distant from the big cities will increase.

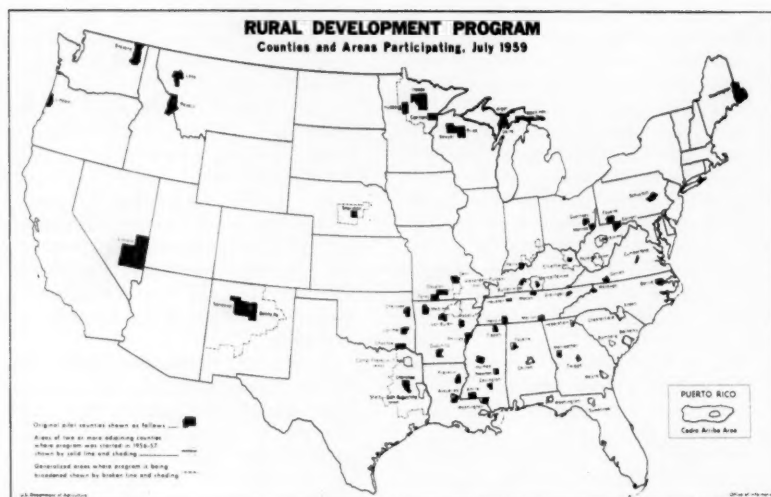
3. The National Interstate Highway System. This 41,000-mile network of superhighways will bring increased speed of transportation to rural areas and will contribute to favorable plant location decisions in rural areas accessible to the network.

4. Improved Facilities. Increasing attention is being given by Federal, state, and local agencies and private organizations to the needs of rural areas for sewage and water treatment plants, for better schools and non-agricultural vocational training, for hospitals and public works. This trend will make rural areas more desirable for companies seeking locations for plant expansions.

Lloyd D. Black is Assistant Chief of the State and Community Assistance Division of the Department of Commerce's Office of Area Development. He represents the Department on the Interdepartmental Rural Development Committee. With a Ph.D. from Michigan, he has taught in colleges in three states and is now on the faculty of American University in Washington. His government service dates back to 1943 and includes the old Office of Strategic Services as well as the Departments of State, Agriculture and Defense.



RURAL AREAS



Rural areas taking part in the cooperative program sponsored by the Department of Agriculture are not all agricultural. Some are in mining areas and others are in cut-over woodland. Some are densely populated even though they have no single large community.

5. New Technology. Innumerable technological developments will have a favorable impact upon plant locations in rural areas. Among such developments may be mentioned atomic power in small units, longer power transmission lines, saline water conversion, miniaturization, and new products and technical processes suitable for small plants. James C. Worthy, Vice-President of Sears, Roebuck and Company, stated at the 1958 Memphis Conference on the Rural Development Program: "Our engineers . . . have found it possible . . . to organize efficient plants of a much smaller size than was formerly thought possible . . . Most products have some key operation, usually involving the most expensive equipment, which determines the capacity of the plant, with operations kept in balance with this key element. A larger plant is merely a multiple of such key units, but the efficiency may actually decline as the problems of administrative control grow more complex with size. If overhead is geared to a minimum-sized plant . . . smaller plants can be used as efficiently, and possibly more so, than their larger counterparts. Recognition of these factors has spurred the decentralization of industry."

6. Financing. Rural areas and small business in general have not

had sufficient access to long-term risk capital. This situation is being remedied in part by various Federal financing programs, notably the Small Business Investment Act of 1958. In addition, the intense competition for industry that is prevalent among states, regions and communities has given rise to hundreds of community industrial development corporations. The Office of Area Development recently found that nearly 75% of such groups were located in towns of under 10,000 population. The financial assistance and other inducements they offer are a real factor in bringing industry to small towns and rural areas.

7. The Rural Development Program. Among the aims of the U. S. Rural Development Program are: strengthening industry in rural low-income areas, widening the range of off-farm job opportunities, and helping people in these areas arm themselves with adequate training.

The Rural Development Program operates on a demonstration basis in 62 pilot counties and 8 areas (consisting of 2 or more counties) in 30 states and in Puerto Rico. An additional 100 counties have come in on a voluntary basis, and other states are viewing the program with interest. It is a self-help program operating through county and state RDP committees and the national

Committee for Rural Development Program, consisting of high Federal officials in the various departments and agencies most concerned. The Department of Agriculture receives a total of about \$2.5 million to perform research and to provide additional extension and soil conservation agents in the pilot counties. In addition, loan authorization of the Farmers Home Administration was increased by \$15 million. Related to the Rural Development Program is the possibility that "depressed areas" legislation will some day be enacted into law.

Conclusions

In conclusion it is incorrect to assume that industrial development is inappropriate for rural areas. It has been demonstrated that small towns and rural areas already have a substantial share of the 27.1% of present manufacturing employment that operates outside of standard metropolitan areas. For the most part, these industries employ less than 20 persons per plant and are agriculturally oriented. The prospects for increased development of non-agriculturally-oriented industries in rural areas are bright for the future. Alert companies would do well to consider smaller cities and towns for successful plant location decisions.

A TOWN IS PEOPLE — NOT JUST A PLACE

Analysis of the human equation is often the most difficult part of setting on the best location for a new plant. A Rensselaer Polytechnic Institute professor with consulting experience points out some of the major factors to consider when sizing up the suitability of a particular community for your operations.

By Dale S. Beach

To a great extent the desirability of an area as a location for new industry is determined by the character of the people who live in that community. The people "make" the town. Outside of the geographic and climatic aspects of an area the people create and shape nearly all the other features of the community.

They provide the labor which produces the goods and services of the locality. The social institutions — the schools, government, churches, etc. — are operated by and take on the distinctive characteristics of the people who populate the community.

According to a survey of the plant location experiences of over 2,000 companies in the metal working industry an evaluation of the labor market situation was stated to be the most complex of all the problems encountered. Where errors had been made, labor was most frequently mentioned.

The ideas and methods discussed in this article are based to a large extent upon the author's own experience in making an analysis and evaluation of the human resources and labor situation in communities for plant location purposes.

By choosing from among the great number of items and factors

that can be studied, analyzed and evaluated, this article will concentrate upon seven major factors which the author considers to be of paramount importance. The emphasis given to the various factors may vary somewhat depending upon the particular circumstances and field of business of the company which is making the selection. For example, wage rates are much more critical for a company whose labor costs comprise a large proportion of its total costs than for a firm

whose labor cost is low but whose capital investment costs are high.

The process of selecting a community in which to locate a business is not completely objective and scientific. Subjective and attitudinal considerations also play a part. The way company executives feel about a city or town — the general impressions they acquire of the people, its appearance, and the general atmosphere — often may be major determinants.

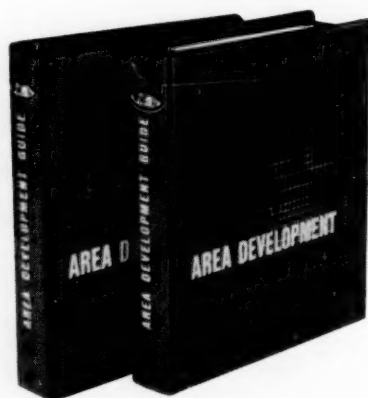
The following significant labor,

Dale S. Beach is Assistant Professor of Management Engineering at RPI. He has degrees from Cornell in Administrative Engineering and Industrial and Labor Relations, and taught in Cornell and Lehigh before going to RPI. His industrial and consulting experience include work with Westinghouse, New York Telephone, Corning Glass, Western Electric, and Trico Products (Buffalo, New York).



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PEOPLE

human resource, and industrial relations factors will be discussed:

- A. Average wage and salary rates
- B. Prevailing personnel practices and fringe benefits
- C. Labor-management relations
- D. Extent and nature of union organization
- E. Labor supply
- F. Character of the people and educational resources
- G. State labor laws and their administration

The Labor Market

In making a survey to obtain the answers to all of the above questions (with the exception of item G) it is essential that one clearly define the size of the geographical area which will be studied. The area should coincide with the labor market.

A labor market is defined as a geographical area within which employers recruit workers and workers seek employment. It is usually thought to consist of a central city or cities and the surrounding territory in which persons can change their jobs without changing their place of residence. The Departments of Labor at both the Federal and State level usually define labor markets in terms of a county or counties since statistics relating to employment, earnings, etc. are conveniently collected on a county-wide basis.

Wage and Salary Rates

Wage rates are a major determinant of labor costs. However, plant efficiency or productivity as measured by output per man-hour of input also has an appreciable effect upon labor costs. A company may locate a plant in a low wage labor market and still have high labor costs (hence high total costs) because of poor administrative practices, inefficient organization, low capital investment per worker, improper work methods, inadequately trained employees, and many other reasons.

The overall average earnings for production workers in an entire labor market is not a meaningful statistic. While it is readily obtainable from the various state departments of labor, it may lead one to false conclusions since all production employees regardless of occupation

PEOPLE

and skill are combined. The actual going or average wage rates for a selected group of key jobs should be obtained.

While it is costly to do so, the best method of obtaining accurate wage and salary data is by conducting one's own survey. The next most satisfactory procedure is to gain access to survey data of some other organization. Certain companies in practically every city conduct annual wage surveys which they may be willing to share with one's own firm. Local personnel managers associations, Chambers of Commerce, and trade associations often have some wage survey data available. If the area under consideration is one of those for which the Bureau of Labor Statistics of the United States Department of Labor regularly conducts wage surveys (usually confined to the large cities in the U.S.) then this information is readily available. Usage of survey data other than one's own invariably means that many jobs which one is interested in will not be reported.

If one is primarily interested in the average wage level of a community (or communities) relative to other cities throughout the country, this information can be obtained for the larger cities by consulting publications of the Bureau of Labor Statistics (BLS) of the United States Department of Labor. The BLS annually conducts wage surveys in the major labor markets. It determines the distribution and the average wages paid for each of 18 office type jobs and 17 plant type jobs. According to the surveys conducted during the winter of 1958-59 the combined relative pay level for the 17 plant type jobs was 23 per cent lower in Memphis, Tennessee than in New York City. On the other hand the San Francisco-Oakland market was 16 per cent above the level of New York City. The accompanying table* gives the relative pay levels for plant workers in 20 labor markets with New York City equal to an index of 100.

The work categories involved are maintenance, custodial and material movement positions for the winter of 1958-59.

Northeast:

Boston	94
Buffalo	108
Newark-Jersey City	108
New York City	100
Philadelphia	99

South:

Atlanta	82
Baltimore	94
Dallas	80
Memphis	77
New Orleans	75

North Central:

Chicago	106
Detroit	113
Milwaukee	106
Minneapolis-St. Paul	105
St. Louis	102

West:

Denver	98
Los Angeles-Long Beach	109
Portland	106
San Francisco-Oakland	116
Seattle	108

*Taken from: Wages and Related Benefits — Twenty Labor Markets — 1958-1959," Bulletin No. 1240-22, United States Department of Labor.

It is evident from an examination of the table that the plant location choice can have an appreciable effect upon a company's total labor costs, assuming that it follows a policy of paying equal to the area average. If, for example, wages and salaries (covering direct, indirect, and administrative labor) comprise 40 per cent of the total costs of manufacturing a product and if these average 10 per cent higher in one community than another, the total cost of the product will be 4 per cent greater in the first than the second.

To find out how wage levels for any of the smaller cities and towns compare with those surveyed by the BLS, a company must conduct its own wage study. Ready comparisons can be made by using the same key jobs as does the Government. Job descriptions are printed in each wage survey bulletin published by the United States Department of Labor.

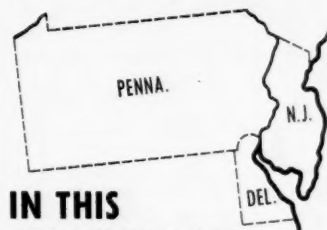
Personnel Practices

In order for a firm to compete effectively in a labor market it must keep reasonably in line with

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the trends in supplementary compensation and prevailing area personnel practices. Bonuses, incentives, insurance programs, pensions, holidays, vacations, overtime and holiday pay practices, shift differentials, stability of employment, and many similar items should be surveyed and evaluated.

According to a survey conducted by the Chamber of Commerce of the United States in 1957, of 1,020 reporting companies payments for fringe benefits averaged 21.8 per cent of the payroll. Certain of the items included in this well-known survey such as old age and survivors insurance, unemployment insurance, and suggestion plan awards should be excluded from consideration when comparing one community with another since these items are either uniform for all firms or are related to individual company variation and not to inter-community differences.

One fringe item, that of paid holidays, will be presented as an illustration of the considerable differences which exist among cities throughout the country. The modal number of paid holidays for all in-

dustries in Boston in the years 1958-59 was 11, in Baltimore it was 7, while in Dallas, Texas, it was 6.

Just as with basic wage data, information pertaining to fringe benefits and prevailing personnel practices can best be obtained by conducting one's own survey through personal visits to companies in the areas under consideration.

Labor-Management Relations

Examine the recent history of relations in the area. Tabulate the number of strikes, duration, and number of workers involved by industrial classification. Are the work stoppages confined to a few companies and unions; to a particular industry? What portion of the strikes originated locally and what part was due to local plants being shut down due to industry-wide and multi-employer bargaining?

To facilitate comparisons with other labor markets, other states, and with the United States as a whole, find out the percentage of man-days of total working time which are lost due to work stoppages. This information may be available in this form at the De-

partment of Labor of the State under consideration, but more than likely it will have to be computed from the raw data which is in existence.

To compute this statistic it is necessary to obtain the total number of man-days idle due to work stoppages for the labor market for the year. Divide this by the total number of man-days of working time in a work year for that labor market and multiply by 100 to convert to a percentage. This second statistic can be approximated by ascertaining the average non-agricultural employment (less government workers) — employees in these classifications do not go on strike — and multiplying by the number of working days in a year. The statistics on employment are maintained by State Labor Departments in connection with the administration of the unemployment insurance programs throughout the country.

By reducing strike statistics to a percentage we have a means of comparing the severity in one city with another, one city with its own statewide average and also with the national average.

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For the United States as a whole, .29 per cent of working time was lost in the year 1956. The worst year in history from the standpoint of strikes was in 1946 when 1.43 per cent of working time was lost.

The foregoing type of statistic gives a general indication or trend over the years; however, the absence or prevalence of strikes in a city is not something inherent in the labor force of the locality. It is affected by management attitudes and policies, labor union attitudes, relations of local plants to national bargaining situations, and many other factors.

Another aspect of the labor-management climate in an area consists of prevailing labor relations practices. This refers to the collective bargaining practices which may have become well-accepted and established in local industries. What percentage of the labor agreements call for compulsory unionism such as the union shop, agency shop, or maintenance of membership? How restrictive are working rules? Does management have freedom to make changes in job content and flexibility in shifting employees from

one job to another? Is management's authority to adjust the size of crews severely limited?

Actually contractual practices such as the foregoing are frequently correlated with the type of industry and the particular national unions involved. Variation from community to community within a general region is often of secondary importance and may be due somewhat to chance differences.

Labor Union Organization

The culture, traditions, and sentiment of the people in a community have a powerful influence upon the success or failure of union organizing drives. Medium and large cities in the Northeast tend to be heavily unionized. In rural areas, in small towns and in the South the populace is much less sympathetic towards unionization.

In surveying a labor market area a company should ascertain the percentage of the labor force in total and by industry which belongs to unions. Which unions are strongest? Are local independent unions prominent or are the national and international unions most significant

in the locality? How long have unions been active? What is the sentiment of the townspeople towards unions? What type of leadership is active in the unions? Are the union leaders well integrated into the social fabric of the community?

Labor Supply

Can enough labor, of the type and quality needed, be recruited? There is no simple formula for determining this. Clearly, if a company is willing to pay wages and benefits which are far above the average in the area, it can "pirate" labor away from other companies even if labor supply is inadequate by all normal measures. But such a practice may lead to bitter relations with the other established employers.

Retaliation in the form of a labor price war could result with consequent harm to all companies concerned. Or the economic health and stability of the area could suffer if some employers were seriously weakened due to inability to meet the high labor rates. The only realistic way to analyze this problem of labor supply is to assume the prospective firm will equal but

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The map shows the Snake River flowing from the top right towards the bottom left, and the Columbia River flowing from the top left towards the bottom right. U.S. Highway 395 runs along the Snake River, and U.S. Highway 410 runs along the Columbia River. Key locations marked include Pasco, Burbank, Walla Walla, McNary Dam, and Umatilla. A star marks the location of Walla Walla. A dashed line indicates the border between Washington and Oregon.

PEOPLE

not exceed the prevailing wages and benefits.

The factors which must be studied and evaluated are as follows: (Most of the data needed can be collected from the local office of the State Employment Service.)

1. Total number of persons in labor force, classified by age and sex.
2. Number who are employed, classified by occupation and industrial attachment.
3. Percentage of the total labor force which is unemployed. This should be related to the classification system which is used by the United States Department of Labor. For example, if unemployment falls between 3.0 and 5.9% of the total labor force it is considered that job seekers are slightly in excess of openings.
4. Occupational skills of unemployed registrants at the State Employment Office. Remember that some unemployed do not register with the State.
5. Seasonal variation in employment.
6. Can persons who are not now in the labor force be induced to seek employment. This is an "if-ty" question. The answer depends upon the attractiveness of the jobs offered. Women, especially housewives, often enter, leave and then re-enter as their children grow older. If women constitute a small percentage of the total labor force (the national average is about one-third), it usually means that they will actively seek work if the proper job opportunities exist.
7. Recrutable yearly additions to the labor force. All of those graduating from local high schools will not immediately seek employment since a sizeable portion will go on to college — nationally about one-third of the high school graduates enter institutions of higher learning. One may also look to local business schools, technical institutes, and colleges as a source of potential employees.

All of the foregoing information on labor supply must be evaluated in accordance with the company's particular needs. Remember that professional and managerial talent and some sub-professional and skilled labor can be recruited from

a wide geographical region since those in higher income brackets are often willing to change their place of residence for the "right" job opportunities.

The Community Resources

To gauge the qualities and characteristics of the people as prospective employees it is helpful to visit employers who do business in the area. Interviews with the company presidents, plant managers, and personnel directors may be utilized to elicit information and opinions regarding employee productivity, attitudes towards work and "business," state of discipline, acceptance of innovations, turnover and absenteeism.

How active are the various service clubs and civic betterment organizations such as the Rotary, Kiwanis, Lions, planning boards, community chests, industrial development groups, and the like? One may gauge the vitality and civic pride of the populace from an examination of these organizations.

Note the condition and cleanliness of the streets, homes, parks, public buildings, and commercial establishments.

Considering the size of the community does it have an adequate quantity of cultural, social, and recreational opportunities and organizations. Examine such representative facilities and institutions as the public library, musical organizations, summer playground programs for children, and museums.

The quality and adequacy of the educational system is vital to the strength and future of any community. While it would be a major project to analyze and evaluate the schools and would require professional skills to do a thorough job, a business firm can obtain certain data quite readily from both the State Department of Education and the local school board to help make broad judgments. Information to be collected includes average teacher salaries, salary schedules, number of students per teacher, students per school building compared with design capacity, etc. How complete are the educational offerings? Are vocational, business, and adult education courses given?

Those companies having a large proportion of technical, professional

and managerial employees should seriously examine a prospective city or town from the standpoint of availability of educational facilities at the university level (these may be resident facilities or extension programs).

State Labor Laws

This last factor affects primarily labor costs and the relative amount of freedom from labor controls which a firm may enjoy. Clearly, of course, this pertains to selection among states and not to cities or localities within a state.

The Workmen's Compensation Insurance rates and the way in which the law is administered are of immediate concern to an employer. Differences in costs are due primarily to variation in benefit level, conditions covered, and administration.

Unemployment insurance costs also vary from state to state. The major factor affecting the tax rate for an individual employer is his own rate of unemployment; however, the provisions and interpretation of the particular state law also are significant. Certain laws allow payments to persons on strike, for those who have voluntarily quit, to employees who have been discharged for misconduct, or because of pregnancy.

Nineteen states in the Union have so called "Right-to-Work" laws which outlaw most forms of compulsory unionism such as the closed shop, union shop, maintenance of membership, etc. Some companies find such laws attractive because they feel that in those states the collective bargaining power of unions will be restricted.

Upon collecting data and information for all of the foregoing seven categories for each of the communities under consideration the responsible executives are in a position to weigh, evaluate, compare, and finally decide which city or locality offers the greatest advantage from the standpoint of labor climate and human resources. This judgment will be fitted in with the broader problem of choosing a location for a business by giving full consideration to the other important criteria of taxes, government, transportation, climate and physical features, accessibility to raw materials and to markets.

WAGE LEVELS IN 500 COMMUNITIES

From our files of Registered Community Audits, ID presents the first of a series of summaries of data on specific location factors. This information was supplied by community groups—usually chambers of commerce—in response to a question calling for the range of wages paid to skilled, semi-skilled and unskilled workers in the community. The interpretation of these terms was left to the individual communities.

Without any profound analysis, it is obvious that variations in wage levels are as great or greater within many of the states as between states in different sections of the country, and that the same community may have both the lowest and the highest wages in the state. We assume that the wages of less than a dollar an hour apply to industries not engaged in interstate commerce. Each entry gives lowest and highest hourly wages in dollars and cents for their levels of skills.

AREA	SKILLED	SEMI-SKILLED	UNSKILLED	AREA	SKILLED	SEMI-SKILLED	UNSKILLED	AREA	SKILLED	SEMI-SKILLED	UNSKILLED
ALABAMA				ARIZONA				ARKANSAS			
Decatur	1.48/2.42	1.40/2.10	1.16/1.67	Bisbee	2.40/3.50	1.50/2.49	1.25/2.35	Arkansas City	2.00/3.75	1.35/2.00	1.00/1.85
Mobile	2.25/3.25	1.50/2.25	1.00/1.78	Coolidge	2.00/3.50	.70/1.50	.62/1.00	Atchison	1.80/3.50	1.55/2.26	1.00/1.94
Oneonta	1.75/3.00	1.25/1.50	1.00/1.25	Tucson	2.00/6.00	1.50/2.00	.75/1.50	Augusta	2.02/2.35	1.50/2.02	1.50/1.50
Tuscaloosa	1.75/3.00	1.25/2.00	1.00/1.50	CALIFORNIA				Baxter Springs	1.75/2.58	1.25/2.38	1.00/1.25
ARIZONA				Banning	2.50/4.00	1.50/2.00	1.00/1.75	Belleville	1.50/1.75	1.25/1.50	1.00/1.25
Blytheville	1.50/2.25	1.25/1.75	1.00/1.25	Clovis	2.00/4.25	2.00/2.40	1.00/1.95	Beloit	1.98/2.90	.21/1.98	1.00/1.27
Flt. Smith	1.75/3.25	1.20/1.75	1.00/1.45	Fresno	2.36/3.25	2.08/2.36	1.25/1.95	Bonner Springs	2.00/2.50	1.50/2.00	1.00/1.50
N. Little Rock	1.35/3.00	1.22/1.75	1.00/1.25	Glendale	2.25/3.00	1.50/2.25	1.25/1.50	Burlington	1.50/2.00	1.25/1.60	1.00/1.50
Grtr. L. Rock	1.40/3.17	1.20/1.90	1.00/1.63	Indio	2.50/3.50	1.50/2.00	1.00/1.75	Chautau	1.60/1.80	1.40/1.50	1.15/1.35
Paragould	1.50/2.25	1.00/1.50	1.00/1.10	Kerman	1.75/3.50	1.50/2.50	1.00/1.25	Cherryvale	1.75/2.00	1.35/1.65	1.25/1.50
ARIZONA				La Habra	2.38/4.15	1.70/2.68	1.56/2.30	Clay Center	1.35/2.00	1.00/1.25	.75/1.00
Bisbee	2.40/3.50	1.50/2.49	1.25/2.35	Redwood City	2.73/4.15	2.40/2.80	.80/2.68	Coffeyville	1.80/3.50	1.25/1.80	1.00/1.75
Coolidge	2.00/3.50	.70/1.50	.62/1.00	Roseville	2.25/4.00	1.50/3.59	1.00/2.00	Colby	1.75/2.25	1.50/1.75	1.25/1.50
Tucson	2.00/6.00	1.50/2.00	.75/1.50	San Leandro	2.00/4.50	1.75/3.00	1.70/2.50	Columbia	1.70/2.00	1.35/1.60	1.25/1.40
CALIFORNIA				Vallejo	2.80/4.00	1.75/3.00	1.25/2.80	Concordia	1.62/—	1.40/—	1.05/—
Banning	2.50/4.00	1.50/2.00	1.00/1.75	COLORADO				Council Grove	1.44/2.30	1.40/1.65	1.10/1.50
Clovis	2.00/4.25	2.00/2.40	1.00/1.95	Boulder	2.00/3.80	1.50/3.00	1.25/2.75	Derby	2.10/3.10	1.00/1.75	.50/1.00
Fresno	2.36/3.25	2.08/2.36	1.25/1.95	Colo. Springs	2.10/2.50	1.50/2.00	1.00/1.40	Dodge City	2.50/2.85	1.75/1.90	1.25/1.45
Glendale	2.25/3.00	1.50/2.25	1.25/1.50	Denver	2.40/3.50	2.00/2.40	1.00/1.75	El Dorado	1.50/3.75	1.35/2.75	1.00/2.42
Indio	2.50/3.50	1.50/2.00	1.00/1.75	Ft. Morgan	2.65/3.50	1.40/2.30	1.00/1.41	Ellinwood	2.25/3.75	1.50/1.95	1.25/1.45
Kerman	1.75/3.50	1.50/2.50	1.00/1.25	G'wood Springs	2.50/3.25	1.75/2.50	1.00/1.75	Ellsworth	1.65/2.85	1.30/1.90	1.00/1.40
La Habra	2.38/4.15	1.70/2.68	1.56/2.30	Leveland	1.50/2.25	1.35/1.65	1.00/1.35	Emporia	2.00/3.50	1.66/1.80	1.25/1.66
Redwood City	2.73/4.15	2.40/2.80	.80/2.68	Rocky Ford	2.00/3.00	1.50/2.25	.75/1.35	Eureka	3.00/3.50	2.00/2.50	1.60/1.70
Roseville	2.25/4.00	1.50/3.59	1.00/2.00	Sterling	2.17/3.75	2.15/2.75	1.50/2.00	Ft. Scott	1.85/3.00	1.50/2.10	1.25/1.75
San Leandro	2.00/4.50	1.75/3.00	1.70/2.50	CONNECTICUT				Fredonia	1.75/2.00	1.35/1.65	1.25/1.50
Vallejo	2.80/4.00	1.75/3.00	1.25/2.80	Manchester	1.75/3.50	1.40/2.25	1.00/1.75	Garden City	2.50/3.75	1.50/2.00	1.00/1.25
COLORADO				New Britain	2.50/3.00	1.75/2.40	1.45/1.75	Girard	1.70/1.90	1.40/1.60	1.00/1.30
Boulder	2.00/3.80	1.50/3.00	1.25/2.75	FLORIDA				Goodland	2.25/2.50	1.25/1.50	1.00/1.25
Colo. Springs	2.10/2.50	1.50/2.00	1.00/1.40	Clearwater	1.85/2.50	1.50/1.85	1.00/1.50	Great Bend	1.75/3.50	1.60/1.90	1.25/1.60
Denver	2.40/3.50	2.00/2.40	1.00/1.75	Delray Beach	2.00/3.35	1.25/2.00	1.25/1.50	Hays	1.25/1.70	—/—	1.00/1.25
Ft. Morgan	2.65/3.50	1.40/2.30	1.00/1.41	Ft. Myers	2.37/3.50	1.10/1.50	1.00/1.25	Herrington	1.75/2.65	1.50/2.40	1.25/2.20
G'wood Springs	2.50/3.25	1.75/2.50	1.00/1.75	Miami (Metro.)	2.37/3.50	1.35/1.65	1.00/1.25	Hillboro	1.85/2.75	1.25/1.85	1.00/1.40
Leveland	1.50/2.25	1.35/1.65	1.00/1.35	Riviera Beach	2.00/3.35	1.25/2.00	1.25/1.50	Holton	2.50/3.00	1.50/2.50	1.25/1.50
Rocky Ford	2.00/3.00	1.50/2.25	.75/1.35	Tampa	1.45/3.70	2.00/2.65	1.00/2.50	Holtsburg	1.68/2.20	1.40/2.27	1.20/1.45
Sterling	2.17/3.75	2.15/2.75	1.50/2.00	Palm B. Cnty	2.00/3.35	1.25/2.00	1.25/1.50	Horton	1.80/2.90	1.25/1.95	1.00/1.33
CONNECTICUT				GEORGIA				Humboldt	1.65/2.35	1.30/1.55	.85/1.25
Manchester	1.75/3.50	1.40/2.25	1.00/1.75	Adairsville	.95/1.25	.95/1.10	.75/1.00	Hutchinson	1.60/1.80	1.40/1.50	1.25/1.40
New Britain	2.50/3.00	1.75/2.40	1.45/1.75	Atlanta	1.75/2.25	1.25/1.75	1.00/1.25	Independence	1.50/2.00	1.25/2.00	1.00/1.50
FLORIDA				Augusta	1.76/3.48	1.24/1.56	1.10/1.29	Iola	1.90/3.00	1.40/1.90	.85/1.10
Clearwater	1.85/2.50	1.50/1.85	1.00/1.50	Cartersville	1.30/2.25	1.00/1.35	1.00/1.25	Junction City	2.04/2.50	1.97/2.15	1.00/1.90
Delray Beach	2.00/3.35	1.25/2.00	1.25/1.50	College Park	2.50/4.00	1.25/2.50	1.00/1.25	Lawrence	1.35/1.75	1.15/1.55	1.00/1.15
Ft. Myers	2.37/3.50	1.10/1.50	1.00/1.25	Columbus	1.75/2.75	1.25/1.75	1.00/1.25	Kansas City	1.70/2.67	1.40/2.27	1.20/1.45
Miami (Metro.)	2.37/3.50	1.35/1.65	1.00/1.25	Cordele	1.75/2.75	1.25/1.75	1.00/1.10	Kansas City	1.75/4.00	1.75/2.05	1.10/2.00
Riviera Beach	2.00/3.35	1.25/2.00	1.25/1.50	Dahlonega	1.27/1.80	1.26/1.40	1.00/1.25	Kingman	1.85/1.95	1.50/1.65	.75/1.25
Tampa	1.45/3.70	2.00/2.65	1.00/2.50	DeKalb	1.30/3.10	1.20/2.90	1.20/2.50	Larned	2.00/3.50	1.50/2.00	1.00/1.50
Palm B. Cnty	2.00/3.35	1.25/2.00	1.25/1.50	Douglas	1.50/3.50	1.15/1.75	1.00/1.25	Leavenworth	2.65/4.00	2.50/3.00	1.80/2.25
GEORGIA				Eastman	2.50/3.50	1.50/2.50	1.00/2.00	Liberal	1.75/4.50	1.50/2.75	1.00/1.75
Adairsville	.95/1.25	.95/1.10	.75/1.00	Ellijay	1.75/2.75	1.25/1.45	1.00/1.25	Lindsborg	1.80/2.40	1.00/1.50	1.00/—
Atlanta	1.75/2.25	1.25/1.75	1.00/1.25	Fairburn	2.00/3.00	1.50/2.00	1.00/2.00	Lyons	1.70/2.50	1.50/2.25	.75/1.50
Augusta	1.76/3.48	1.24/1.56	1.10/1.29	Ft. Valley	1.50/2.27	1.30/1.47	1.00/1.25	Manhattan	2.10/3.55	1.25/2.00	1.00/1.50
Cartersville	1.30/2.25	1.00/1.35	1.00/1.25	Gainesville	1.50/2.00	1.00/1.50	.50/1.00	Marion	1.65/2.25	1.50/2.00	1.00/1.50
College Park	2.50/4.00	1.25/2.50	1.00/1.25	Gibson	1.50/2.00	1.25/1.50	1.00/1.00	Marysville	2.00/2.50	1.50/2.00	1.00/1.50
Columbus	1.75/2.75	1.25/1.75	1.00/1.25	Greenwood	1.50/2.00	1.00/1.50	.50/1.00	McPherson	2.00/3.25	1.75/2.00	.90/1.81
Cordele	1.75/2.75	1.25/1.75	1.00/1.10	Griffin	1.35/3.00	1.05/1.50	1.00/1.39	Medicine Lodge	1.75/2.65	1.74/2.25	1.50/2.00
Dahlonega	1.27/1.80	1.26/1.40	1.00/1.25	Homerville	2.00/3.40	1.75/2.75	1.00/1.50	Neodesha	1.75/2.00	1.35/1.65	1.25/1.50
DeKalb	1.30/3.10	1.20/2.90	1.20/2.50	Jackson	2.00/3.50	1.25/1.50	1.00/1.25	Newton	2.00/2.50	1.75/2.25	1.25/1.50
Douglas	1.50/3.50	1.15/1.75	1.00/1.25	LaFayette	1.50/3.00	1.00/1.50	.90/1.25	Norton	2.50/3.75	2.40/2.75	1.50/2.00
Eastman	2.50/3.50	1.50/2.50	1.00/2.00	Macon	1.60/2.10	1.30/1.80	1.00/1.50	Olathe	1.75/2.75	1.35/2.85	1.00/2.00
Ellijay	1.75/2.75	1.25/1.45	1.00/1.25	Madison	1.50/3.00	1.25/1.75	1.00/1.25	Osage City	1.50/3.00	1.20/2.00	1.00/1.20
Fairburn	2.00/3.00	1.50/2.00	1.00/2.00	Montezuma	2.00/2.50	1.25/2.00	1.00/1.25	Osawatimie	1.87/2.82	1.10/1.80	.75/1.00
Ft. Valley	1.50/2.27	1.30/1.47	1.00/1.25	Richland	2.00/3.25	1.50/2.50	1.00/1.50	Oswego	1.50/1.85	1.00/1.30	.75/1.00
Gainesville	1.50/2.00	1.00/1.50	.50/1.00	IOWA				Ottawa	1.75/2.20	1.25/1.75	1.00/1.50
Gibson	1.50/2.00	1.25/1.50	1.00/1.00	Boone	1.40/2.50	1.25/1.40	1.00/1.25	Parsons	3.70/1.99	1.99/1.70	1.70/1.00
Greenwood	1.50/2.00	1.00/1.50	.50/1.00	Burlington	2.10/2.95	1.35/1.90	1.00/1.60	Phillipsburg	2.25/3.75	1.50/2.00	1.00/1.75
Griffin	1.35/3.00	1.05/1.50	1.00/1.39	Cherokee	1.50/1.25	1.00/1.25	1.00/1.25	Pittsburg	1.70/1.90	1.40/1.60	1.00/1.35
Homerville	2.00/3.40	1.75/2.75	1.00/1.50	Clinton	1.40/1.75	1.12/1.40	1.00/1.25	Plainville	1.70/2.85	1.30/1.85	1.00/1.40
Jackson	2.00/3.50	1.25/1.50	1.00/1.25	Clarinda	1.65/3.75	1.60/2.30	1.00/2.05	Pratt	1.75/2.50	1.35/1.50	.75/1.25
LaFayette	1.50/3.00	1.00/1.50	.90/1.25	Des Moines	1.35/3.90	1.10/2.00	1.00/2.60	Russell	1.80/2.00	1.25/1.50	1.00/1.25
Macon	1.60/2.10	1.30/1.80	1.00/1.50	Dubuque	1.75/3.25	1.35/2.55	1.25/2.10	Scoti City	1.60/2.75	1.25/1.60	.75/1.50
Madison	1.50/3.00	1.25/1.75	1.00/1.25	Emmetsburg	2.00/3.25	1.00/2.00	.75/1.25	Seneca	1.50/3.75	1.25/1.75	1.00/1.50
Montezuma	2.00/2.50	1.25/2.00	1.00/1.25	Ft. Madison	1.85/2.85	1.25/1.68	1.00/1.25	Stafford	1.56/2.75	1.25/1.75	.75/1.00
Richland	2.00/3.25	1.50/2.50	1.00/1.50	Independence	1.75/2.00	1.00/1.25	1.00/1.25				
				Knoxville	2.31/3.80	2.19/2.43	1.00/1.86				
				Le Mars	1.55/2.50	.75/1.75	.75/1.25				
				Manchester	1.75/2.25	1.25/1.50	.50/1.00				
				Marengo	2.12/2.76	1.92/2.19	1.66/1.97				
				Muscatina	1.75/3.75	1.50/2.50	1.00/1.90				
				Ottumwa	1.78/3.50	1.25/2.25	1.00/1.75				
				Sioux City	1.40/3.67	1.40/2.25	1.00/2.08				
				KANSAS							
				Abilene	2.85/3.20	1.98/2.25	1.50/1.75				
				Anthony	2.50/3.00	1.50/2.00	1.25/1.50				

WAGE LEVELS

AREA	SKILLED	SEMI-SKILLED	UNSKILLED
Sterling	1.75/2.50	1.25/1.75	.80/1.25
Stockton	1.75/2.30	1.50/1.75	1.00/1.25
Topeka	2.00/2.65	1.10/2.65	1.00/2.25
Ulysses	1.80/2.95	1.40/1.95	1.00/1.50
Wamego	1.80/2.95	1.30/1.90	1.00/1.40
Wellington	1.80/2.35	1.50/1.80	1.00/1.50
Wichita	3.50/4.00	1.95/2.40	1.00/2.25
Winfield	2.00/3.00	1.65/2.25	1.00/1.75
Yates Center	1.50/2.00	1.25/1.60	1.00/1.50

KENTUCKY			
Henderson	1.60/2.85	1.10/1.45	1.00/1.15
Louisville	2.28/2.92	1.94/2.62	1.59/2.19
Murray	2.00/2.35	1.25/1.50	.75/1.25
Paduach	2.15/2.68	1.46/1.90	1.35/1.59

MAINE			
Auburn	1.65/2.20	1.25/1.55	1.00/1.25
Bangor	2.00/3.65	1.50/1.75	1.25/1.50
Portland	1.51/2.16	1.25/1.57	1.07/1.32
Presque Isle	2.25/3.30	1.50/2.25	1.00/1.50
S. Portland	1.75/3.50	1.50/2.75	1.00/1.60

MARYLAND			
Baltimore	2.32/2.86	1.83/2.32	1.57/1.79
Frederick	1.75/2.50	1.50/2.50	1.00/1.50
Hagerstown	1.75/2.75	1.40/2.25	1.00/2.00
Prince George County	2.50/3.00	2.00/2.50	1.50/2.00

MASSACHUSETTS			
Adams	1.59/2.21	1.25/1.65	1.00/1.17
Geenfield	1.85/2.25	1.50/1.85	1.15/1.50
Haverhill	1.50/3.00	1.35/1.65	1.00/1.25
Lawrence	2.10/3.50	1.35/1.80	1.09/1.60
Lowell	2.15/2.50	1.55/1.75	1.00/1.50
N. Adams	1.59/2.21	1.25/1.65	1.00/1.17
Seekonk	2.90/1.90	1.25/1.90	1.00/1.25
Williamstown	1.59/2.21	1.25/1.65	1.00/1.17

MICHIGAN			
Alma	2.40/3.00	1.75/2.00	1.50/2.00
Cadillac	2.35/2.45	1.75/2.10	1.65/1.85
Escanaba	1.75/2.25	1.50/1.90	1.25/1.75
Detroit	2.25/3.50	1.78/2.60	.50/2.29
Grand Rapids	2.17/3.30	1.90/2.14	1.75/2.00
Marquette	2.25/2.85	1.57/2.25	1.50/1.95
Menominee	1.50/2.78	1.18/2.50	1.08/2.40
Monroe	3.12/3.28	2.41/2.47	2.32/2.41

MINNESOTA			
Mankato	1.85/3.90	1.00/1.60	1.00/2.35
New Ulm	1.75/3.85	1.25/1.65	1.00/1.35
Rochester	1.50/4.00	1.35/2.75	1.00/2.55
Virginia	2.50/3.80	1.65/2.85	1.00/2.30
Winona	2.38/2.54	1.84/2.37	1.40/1.69

MISSISSIPPI			
Columbus	1.50/3.40	1.00/1.75	1.00/1.35
Greenville	1.50/2.85	1.55/1.75	.75/1.25
Greenwood	1.75/3.00	1.00/1.50	1.00/1.10
Jackson	1.50/3.50	1.15/2.15	1.00/1.40
Kosciusko	1.25/2.70	1.05/1.70	.75/1.90
McComb	1.25/1.75	1.00/1.50	1.00/1.10
Meridian	1.50/3.25	1.20/2.70	1.00/1.67
Newton	1.25/2.12	1.00/1.50	.75/1.00

MISSOURI			
Boonville	2.25/3.37	1.50/2.25	1.00/1.25
Brookfield	2.00/3.75	1.50/2.50	1.00/1.75
Columbia	2.00/3.50	1.50/2.00	1.00/1.75
Farmington	2.90/3.95	1.75/2.50	1.00/1.50
Hannibal	1.50/2.00	1.30/1.50	1.15/1.30
Jefferson City	1.35/1.90	1.20/1.60	1.00/1.25
Joplin	1.80/2.00	1.65/1.80	1.35/1.50
Kansas City	1.50/2.96	1.40/2.75	.75/2.00
Kirksville	2.50/3.50	1.80/2.50	.90/1.80
Lee's Summit	2.25/3.75	1.75/2.25	1.50/2.00
Lebanon	1.50/2.50	1.10/1.50	.75/1.00
Marceline	1.10/2.75	1.10/2.00	1.00/1.50
Mexico	2.50/4.00	1.85/2.50	1.00/1.85
Moebly	1.50/3.50	1.25/1.75	1.00/1.50
Neosho	2.40/3.50	1.60/2.40	1.00/1.60
Poplar Bluff	1.25/1.75	1.10/1.25	1.00/1.10
Rolla	2.15/3.85	1.80/2.25	1.03/2.26
St. Joseph	1.25/3.60	1.00/1.75	1.00/1.50
Sikeston	1.12/1.75	1.00/1.35	1.00/1.08
Springfield	1.95/3.00	1.15/1.65	1.00/1.30

MONTANA			
Billings	3.15/ up	2.00/3.00	1.50/2.50
Butte	3.25/3.70	2.60/3.00	2.42/2.55
Missoula	2.40/3.50	2.05/2.40	1.99/2.50

NEBRASKA			
Auburn	1.50/2.00	1.25/1.75	1.00/1.25
Beatrice	1.60/2.00	1.40/1.60	1.15/1.30
Blair	2.00/3.00	1.60/2.00	1.10/1.25
Columbus	1.75/2.60	1.25/1.95	1.00/1.45
Cordaz	2.00/2.50	1.10/1.40	1.00/1.25
Fairbury	2.20/3.80	1.50/1.65	1.10/1.25
Falls City	1.75/2.75	1.25/2.00	1.00/1.40
Fremont	1.70/2.00	1.50/1.70	1.00/1.50
Gothenburg	2.00/2.50	1.00/2.00	1.10/1.25
Grand Island	1.50/3.50	1.25/2.00	1.00/1.75
Hastings	1.75/2.75	1.25/1.75	1.15/1.60
Holdredge	1.60/2.75	1.25/1.75	1.00/1.15
Kearney	1.60/2.25	1.35/2.00	1.25/1.75
Lincoln	1.60/2.25	1.35/2.00	1.25/1.75
McCook	1.75/3.50	1.25/1.75	1.00/1.30
Nebraska	1.37/2.38	1.25/1.60	1.17/1.42

AREA	SKILLED	SEMI-SKILLED	UNSKILLED
Norfolk	1.75/3.35	1.25/1.50	1.00/1.50
N. Platte	1.50/3.25	1.25/1.50	1.00/1.25
Omaha	1.50/2.05	1.25/1.70	1.00/1.35
Omaha	1.80/2.40	1.30/2.10	1.00/1.90
O'Neill	1.50/2.50	1.00/1.50	.50/1.00
Plattsmouth	1.50/5.00	1.25/3.00	1.00/2.25
Scottsbluff	2.50/3.00	—	1.50/2.00
Seward	1.75/2.50	1.60/1.75	1.31/1.47
Sidney	1.75/3.50	1.25/1.75	1.00/1.25
Superior	1.75/3.00	1.25/2.00	1.00/1.50
Wayne	2.25/2.50	1.50/2.00	1.00/1.50
Wahoo	2.50/3.00	1.50/2.50	1.00/1.75
West Point	2.50/4.50	1.50/2.50	1.00/1.50
York	1.50/2.25	1.25/1.75	1.00/1.50

NEW HAMPSHIRE			
Concord	1.22/2.25	1.00/1.75	1.00/1.50
Keene	1.75/3.00	1.40/2.00	1.00/1.60
Manchester	1.50/2.50	1.25/1.70	1.00/1.30

NEW JERSEY			
Jersey City	2.00/4.80	1.50/2.50	1.00/1.50
Perth Amboy	1.50/2.75	1.25/2.00	1.00/1.75

NEW MEXICO			
Albuquerque	2.70/5.00	1.65/2.70	1.25/1.75
Artesia	2.25/4.00	1.75/2.75	1.00/1.90
Clayton	1.75/2.50	1.50/2.00	.75/1.25
Raton	2.00/3.90	1.50/2.83	1.00/2.08
Silver City	2.40/3.20	1.80/2.40	.65/2.00
Socorro	2.50/2.75	2.00/2.18	1.70/1.85

NEW YORK			
Batavia	1.50/3.50	1.25/2.50	1.00/2.05
Buffalo	2.65/3.13	2.10/2.68	1.54/2.02
Buffalo	2.00/3.25	1.50/2.50	1.00/1.79
Lyons	1.65/3.00	—	1.10/1.65
N. Tonawanda	2.35/3.28	1.29/2.71	1.10/2.60
Olean	2.10/2.33	1.70/1.95	1.40/1.65
Rome	2.00/3.25	1.70/2.75	1.00/2.25
Tonawanda	2.35/3.28	1.29/2.71	1.10/2.60

NORTH CAROLINA			
Asheville	1.40/2.00	1.15/1.40	1.00/1.15
Charlotte	1.50/4.00	1.15/1.60	.75/1.35
Cherryville	1.25/2.50	.85/1.50	.75/1.10
Concord	1.65/2.25	1.25/1.50	1.00/1.25
Elizabethtown	1.00/1.75	.75/1.00	— / .75
Gastonia	1.40/1.90	1.15/1.50	1.01/1.25
Greensboro	1.75/2.20	1.40/1.75	1.00/1.50
Lumberton	1.50/3.00	1.10/1.37	1.00/1.10
Marion	1.50/2.00	1.00/1.50	.75/1.25
Rocky Mount	1.35/1.75	1.15/1.35	1.00/1.15
Raleigh	1.75/2.25	1.25/1.50	1.00/1.15
Thomasville	1.50/2.50	1.15/1.25	1.00/1.15
Wilson	1.80/2.40	1.25/1.75	1.01/1.60
Winston-Salem	1.40/2.60	1.00/1.85	1.00/1.20

OHIO			
Mansfield	1.75/3.00	1.50/2.00	1.25/1.95
Mt. Vernon	2.00/2.75	1.45/1.95	1.25/1.55
Sandusky	1.85/2.65	1.65/2.30	1.30/2.00
Toledo	2.80/3.35	2.40/2.75	2.00/2.25

OKLAHOMA			
Alva	1.50/2.00	1.20/1.40	1.00/1.10
Bartlesville	1.90/3.75	1.50/2.25	1.00/1.75
Chandler	1.75/3.00	1.75/2.50	1.00/2.25
Chelsea	2.00/2.75	1.50/2.25	1.00/1.50
Henryetta	2.00/2.86	1.30/2.52	1.25/2.05
Marlow	1.75/2.75	1.15/1.75	.75/1.20
Miami	1.50/3.50	1.25/2.50	1.00/2.10
Norman	1.76/2.31	.64/2.36	.89/2.29
Oklahoma City	2.30/3.15	2.08/2.30	1.86/2.08
Pawhuska	1.00/3.00	.87/2.25	.75/1.25
Poteau	1.25/2.00	.85/1.00	.65/1.85
Tulsa	2.65/4.00	1.40/2.10	1.00/1.25
Watonga	2.00/3.50	1.50/2.50	.75/1.00
Woodward	1.50/3.75	1.00/1.75	.50/1.50

OREGON			
Medford	2.66/3.10	2.00/2.75	1.50/2.31
Portland	2.75/3.95	2.00/2.75	1.65/2.25

PENNSYLVANIA			
Albion	1.50/2.05	1.25/1.75	1.00/1.25
Allentown	2.10/3.00	1.68/2.10	1.50/1.68
Corry	1.96/2.46	1.78/2.14	1.65/1.78
Cranesville	1.50/2.05	1.25/1.75	1.00/1.25
Edinboro	2.10/3.50	1.45/1.82	1.15/1.65
Elgin	1.96/2.46	1.78/2.14	1.65/1.78
Beaverdam	2.10/3.50	1.45/1.82	1.15/1.65
Erie	2.10/3.50	1.45/1.82	1.15/1.65
Fairview Twp.	2.10/3.50	1.45/1.82	1.15/1.65
Girard	2.10/3.50	1.45/1.82	1.15/1.65
Harborcreek	2.10/3.50	1.45/1.82	1.15/1.65
Twp.	1.75/2.50	1.35/1.75	1.00/1.35
Huntingdon	1.39/1.83	1.34/1.70	1.00/1.50
Lake City	2.10/3.50	1.45/1.82	1.15/1.65
McKean	2.10/3.50	1.45/1.82	1.15/1.65
Millcreek Twp.	2.10/3.50	1.45/1.82	1.15/1.65
Mt. Union	1.75/2.50	1.35/1.75	1.00/1.35
North East	1.80/2.50	1.35/1.82	1.00/1.50
Plateau	2.00/2.50	1.50/2.00	1.25/1.50
Reading	1.80/2.50	1.40/2.00	1.00/1.50
Shenandoah	1.75/2.25	1.50/1.75	1.00/1.35
Union City	1.50/1.80	1.25/1.50	1.00/1.25
Uniontown	1.75/2.25	1.25/1.80	1.05/1.40
Waterford	1.96/2.46	1.78/2.14	1.65/1.78
Wattsburg	2.10/3.50	1.45/1.82	1.15/1.65
Wesleyville	1.62/2.50	1.20/2.18	1.04/1.95
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Greenville	1.50/2.75	1.15/1.75	1.00/1.30
Hartsville	1.25/2.50	1.10/1.75	1.00/1.40

SOUTH DAKOTA			
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Pierre	2.25/3.50	1.61/2.80	1.34/1.69
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Sioux Falls	2.00/3.40	1.25/2.00	1.00/1.55
Watertown	1.75/2.75	1.25/1.50	1.00/1.25

TENNESSEE			
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Dyers	1.25/1.75	1.00/1.25	.75/1.00
Dynaco	1.20/2.80	1.00/1.82	.75/1.00
Erin	1.75/3.50	1.25/1.70	1.00/—
Johnson City	1.50/1.82	1.20/1.25	1.00/1.10
Lebanon	1.25/2.12	1.00/1.25	.75/1.00
Manchester	1.50/2.25	1.00/1.50	1.00/1.15
Maryville-Alcoa	2.00/3.00	1.50/2.50	1.00/1.50
Memphis	1.75/3.02	1.25/1.75	1.00/1.25
Midwest	1.50/2.50	1.00/2.50	1.00/1.25
Oak Ridge	2.50/2.90	1.98/2.26	1.80/2.34
Springfield	1.45/2.65	1.00/1.45	1.00/1.35

RECENT RELEASES

By Suzanne Johnson

GENERAL REPORTS

Law of Zoning by James Metzenbaum. These three volumes plus 1960 supplement contain a complete picture of zoning patterns from 1714 to the present. They contain cases, rulings, and changes occurring constantly in the field of zoning.

Decisions are set forth in the exact words of the respective court. Historical recitation of the origin, of the philosophy and of the growth of zoning is set forth. Date of each case and name of judge is set forth in connection with substantially all decisions, so that the recentness or the more removed time of each pronouncement may be known. Rulings are set forth on both sides of each subject. Baker, Voorhis & Co., Inc., 30 Smith Avenue, Mount Kisco, New York. 1955, 2,531 pages, \$49.00.

Developing the "Little" Economies by Donald R. Gilmore. Others before him have probed timidly at the margins of the problem of "little economies," but Donald Gilmore has plunged in fearlessly, armed with sheaves of questionnaires, and has come up with an imposing mass of statistics that the rest of us will spend years in digesting.

His map of this little-known world still has gaps filled "with elephants for want of towns," but he has sketched in the main ranges and master streams. Those of us who have sent out questionnaires will recognize that he came up with far better coverage than we might have expected, and that his questions were framed so well that he got a lot of useful answers. His straight-forward presentation of the results is especially commendable. Committee for Economic Development, 711 Fifth Avenue, New York, New York. 1960, 200 pages, \$3.00.

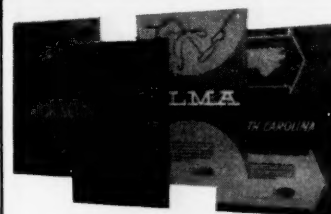
The Industrial Development Corporation: Its Objectives, Functions, and Problems, by Jacob J. Kaufman and Helmut J. Golatz. This bulletin examines the functions, structure, and problems of industrial corporations, in Pennsylvania particularly. Included are a few "do's and don'ts" as well as an outline of essential community information. The bulletin provides a yardstick by which industrial development groups can measure their relative progress. Bureau of Business Research, Pennsylvania State University, University Park, Pennsylvania. 1960, 27 pages, \$1.00.

AREA REPORTS

A Site Selection Security Study for West Virginia. This publication documents numerous advantages of the mountainous terrain of West Virginia with respect to industrial security during a national emergency. West Virginia Economic Development Agency, Main Unit State Capitol, Charleston, West Virginia. 1960, 20 pages.

Comparison of State and Local Taxes in Washington and Oregon as an Influence on Industrial Location by Myron Katz. This report provides some guide lines to the varying types of taxes imposed upon business and industry in both states. The report has concentrated on the state and local taxes which would be levied upon either a typical and representative manufacturing or distribution operation. Ivan Bloch and Associates, 220 Southwest Alder Street, Portland, Oregon. 1960, 33 pages.

Savannah, Georgia — Fingertip Facts. A brochure setting forth the location advantages of the area. Savannah District Authority, P. O. Box 768, Savannah, Georgia. 1960, 28 pages.



EDITORIAL SURVEYS And Plant Location Reports

Since before the turn of the century MANUFACTURERS RECORD has issued special studies of specific cities and areas to assist the site-seeking industrial firm. Today, through the combined coverage of INDUSTRIAL DEVELOPMENT and MANUFACTURERS RECORD this tradition of leadership in this field is being extended and carried forward.

Before you go site-seeking, take advantage of background studies which have already been prepared for the areas listed below. Generally, reprints are available gratis.

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Western Pacific Railroad	Feb., 1960

AREA SURVEYS

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Georgia	Sept., 1960
Seattle, Wash.	Sept., 1960
Elliott Lake, Ontario	Sept., 1960
New York's Capital District	Aug., 1960
Washington State	July, 1960
North Carolina	June, 1960
California, South Bay Area	June, 1960
The Mohawk Valley	May, 1960
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The following planned industrial districts have sites available for immediate construction. Advantages offered by such districts are described in detail in the November-December 1954 issue, pages 6, 7, and 8.

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Georgia

METROPOLITAN ATLANTA — Nine Industrial Districts offering planned sites of varying location, size, price. Services available: (a) optional, (c) (e) (g) (f) optional, (p) (r) (s) (t) (w). For data on these and other sites at Atlanta contact F. Wm. Broome (member, AIDC) Manager, Committee of 100 DeKalb County, 121 E. Ponce de Leon Ave., Decatur, Ga. Atlanta Phone, DRake 8-3691.

Iowa

IOWA "MANUFACTURING MEADOWS" — Clinton, Iowa (population 35,000), 138 miles west of Chicago on Mississippi River and Lincoln Highway (U. S. 30), 190 acres within city. Master plan by Skidmore, Owings & Merrill. Served by Chicago and North Western Railroad. Developed by Clinton Development Company, a civic-non-profit corporation. CHapel 2-4536. R. J. Stapleton, Managing Director. Services available: (a) (optional), (c), (e), (g), (f) (optional), (p), (r), (t), (w), restrictions.

Florida

Perini Industrial Park, located at West Palm Beach on the main line of Seaboard Railroad. Available services (a), (c), (e), (g), (f), (p), (r), (s), (t), (w) — Write — Paul F. Hrabko, P. O. Box 1071, W.P.B. Phone TE 3-4533.

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Harrisburg, Pa. 165 choice acres in well-planned industrial area. All or part is available. Complete utilities, rail siding, within three miles of Pennsylvania Turnpike. Contact Harrisburg Area Chamber of Commerce, 114 Walnut Street, Harrisburg, Pa. for further information.

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REPRESENTATIVE WANTED in your territory. From your desk you can earn a substantial addition to your income. Only written contacts with your clients! Write for particulars and further details to VKK-Office, P. O. Box 128, Vienna 66, Austria.

RATE INFORMATION

CLASSIFIED RATES: \$4 per line for 1-time insertion, \$3 per line for 12-time insertion. Estimate about 40 spaces in each line, allowing for box number.

PROFESSIONAL CARD & SIR RATES: \$30 per column inch for 1-time insertion, \$23 per column inch for 12-time insertion.

BOX NUMBERS: Publisher will assign box and relay correspondence on a confidential basis if desired.

PROOFS: Not furnished on classified ads.

Frederick W. Coleman III is the new executive vice president of the Society of Industrial Realtors and is now established at the SIR offices in Washington. A retired



Army brigadier general, General Coleman previously served as manager for administration in the Washington office of Huges Aircraft Company. General Coleman is a graduate of the George Washington University Law School, is a member of the American Bar Association, the District of Columbia Bar, and Phi Delta Phi legal fraternity. In his new SIR position he succeeds Carl Lloyd who resigned to enter the private investment field.

Craig L. Davis has been named president of the fast-growing Catawissa Valve & Fittings Company, Catawissa, Pennsylvania. Mr. Davis joined the company in 1946 as plant engineer and in recent years had been the firm's chief engineer. He previously was connected with the hydraulics division of Glenn L. Martin Company, Baltimore.

A huge industrial-marine complex designed to be one of the largest and most elaborate in the nation will be constructed east of Morgan City on the Bayou Black outlet to the Gulf of Mexico, according to preliminary plans announced by the developers. The project will cost an estimated \$50 million and will be located on a 1,600-acre section, part of a larger tract of 11,000 acres owned and controlled by Louisiana and South Carolina interests. It has been named Arcadian Gateways Industrial Marine Community and construction is estimated to take 12 to 18 months. The developers are Sam Carline, Inc., Berwick and L-M Company, Inc., of Sumter, South Carolina, and financing agents are Guy L. Deano, Inc., New Orleans.

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INDEX TO PROFESSIONAL AFFILIATIONS
 AIDC..... American Industrial Devel. Council
 AIP..... American Institute of Planners
 AMA..... American Management Association
 ARDA..... American Railway Devel. Assn.
 ASPDA..... Assn. of St. Plan & Devel. Officials
 ASPO..... Amer. Society of Planning Officials
 EEI..... Edison Elec. Inst. (Area Dev. Comm.)
 GLSIDC..... Gt. Lakes Sts. Ind. Devel. Council
 NIDA..... Northeastern Ind. Devel. Assn.
 NIZC..... Natl. Industrial Zoning Committee
 PNWIDC..... Pacific N.W. Ind. Devel. Council
 SIDC..... Southern Industrial Devel. Council
 SIR..... Society of Industrial Realtors
 ULI..... Urban Land Institute

BRIEFS

The Florida East Coast Railway Company has purchased a site of 1,300 acres south of Jacksonville for a new industrial center from Major Realty Corporation at a cost of more than \$500,000. The undeveloped land is part of the 5,800-acre Horne tract, believed the last remaining property close to the Jacksonville city limits. Officials said the railroad is engaged in negotiations with several companies and builders interested in industrial development of the property.

The Gainesville, Florida, Chamber of Commerce came up this year with something unusual in the way of an annual report. It was in the form of a 33 $\frac{1}{3}$ rpm phonograph record, and all the recipients have to do is drop it on the hi fi and hear a verbal account of the chamber's accomplishments.

About 400 corporations representative of U. S. industry will spend an average of 10.7 per cent more for development of new products and processes in 1960 compared with 1959, according to a nationwide, mid-year survey by the American Management Association. Budget changes ranged from an average of 11.8 per cent in mineral and coal mining and 5.2 per cent in publishing, to increases of 16.8 per cent in electronics and 22 per cent in miscellaneous machinery and parts. AMA said further that the 400 corporations spent an average of 3.7 per cent of 1959 sales for product development that year. The leading industry was electronics with 7.7 per cent, followed by instruments and control equipment, 6.0 per cent, and pharmaceuticals with 5.7 per cent.

M. & E. Leasing Corporation, a new entry in the field of industrial leasing, has been formed as an affiliate of C.I.T. Corporation. Both and latter and the new company are subsidiaries of C.I.T. Financial Corporation. M. & E. Leasing will be headed by Thomas E. Lenihan, C.I.T. Corporation president. The new company is prepared to purchase machine tools and other manufacturing equipment for lease to users.

F. Adrian Norton, assistant vice president of the Citizens & Southern National Bank, Atlanta, has been named officer in charge of the bank's Industrial Development Department, according to an announcement by Mills B. Lane, Jr., C&S president. The bank's department has been active in industrial development activity in Georgia for the past eight years and was the first such full-time operation to be set up by a bank in the Southeast, Mr. Lane said. Before joining the C&S in 1954, Mr. Norton was in industrial work with the Central of Georgia Railway. He replaces Clayton D. McLendon who has resigned to form his own business.

The first foothill industrial development in San Mateo County, California, was officially started recently when Wadsworth Publishing Company, Inc., broke ground in Ralston Park, an administrative and



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EXPANSION PLANNING INDEX

For prompt assistance with your planning problems, consult these alert advertisers who are represented in this issue of ID-MR:

PLANT LOCATION SERVICES:

Greater Burlington Industrial Corporation, Charles D. Townsend, Executive Director, 191 College Street, Burlington, Vermont. (Ad page 2)

C.A.S. (Industrial Development), Ltd., A. M. Aslett, Personal Assistant, St. James' House, Kensington Square, London, W.8, England. (Ad page 21)

Chesapeake and Ohio Railway, Wayne C. Fletcher, Director-Industrial Development, 1103 C & O Building, Huntington, West Virginia. (Insert between pages 16 & 17)

Colorado Department of Development, Lewis R. Cobb, Executive Director, 51 State Capitol, Denver 2, Colorado. (Ad page 2)

First Western Bank and Trust Company, Raeburn F. Hay, Vice President, 405 Montgomery Street, San Francisco 4, California. (Ad page 56)

Georgia Power Company, Gene A. Yates, Jr., Vice President, P. O. Box 1719, Atlanta, Georgia. (Ad page 11)

Gulf States Utilities Company, Joseph DeJean, Advertising Department, P. O. Box 2951, Beaumont, Texas. (Ad page 5)

Hanson and Hanson, Inc., James E. Hanson, 210 Main Street, Hackensack, New Jersey. (Ads pages 27, 28 & 29)

Irish Industrial Development Authority, Cathal Loughney, Member, 14 St. Stephen's Green, Dublin, Ireland. (Ad page 31)

Lancashire Industrial Development Association, E. G. W. Allen, Esquire, Director, Queen's House, Queen Street, Manchester 2, England. (Ad page 25)

Michigan Consolidated Gas Company, R. L. Gage, Manager-Industrial Development Division, 415 Clifford Street, Detroit, Michigan. (Ad page 3)

New York State Electric and Gas Corporation, E. W. Bartley, Manager-Industrial Development, 62 Henry Street, Birmingham, New York. (Ad page 51)

North Carolina Department of Conservation and Development, William P. Saunders, Director, Raleigh, North Carolina. (Ad 3rd cover)

Commonwealth of Pennsylvania, Department of Commerce, William R. Davlin, Secretary, South Office Building, Harrisburg, Pennsylvania. (Ad page 16)

Prince George County Industrial Development Commission, S. Walter Bogley, Jr., Executive Director, Chamber of Commerce Building, Hyattsville, Maryland. (Ad 2nd cover)

Puget Sound Power and Light Company, Stewart G. Nell, Manager-Area Development, 1400 Washington Building, Seattle 1, Washington. (Ad page 86)

Reading Company, R. H. Elder, Advertising Agent, Room 456—Reading Terminal, Philadelphia 1, Pennsylvania. (Ad page 79)

Shannon Free Airport Development Company, Ltd., Breudue O'Regan, Chairman, Shannon Free Airport, Shannon, Ireland. (Ad page 31)

Southern Railway System, B. E. Young, Assistant to President, 15 and K Streets, N. W., Washington 13, D. C. (Ad 4th Cover)

Toledo Edison Company, Robert E. Johnson, Manager, Industrial Development Department, 420 Madison Avenue, Toledo, Ohio. (Ad page 12)

Union Electric Company, M. E. Skinner, Vice President and Director of Sales, 315 North Twelfth Boulevard St. Louis, Missouri. (Ad page 15)

Union Pacific Railroad, A. C. Ritter, General Manager of Properties, 1416 Dodge Street, Omaha, Nebraska. (Ad page 4)

Development Corporation of Wales, Gerald S. F. Ritson, T. D., The Chief Executive, 15, Park Place, Cardiff, Wales. (Ad page 23)

Walla Walla Port District, Mrs. Elva Bair, Post Office Box 124, Walla Walla, Washington. (Ad page 81)

Washington Department of Commerce and Industrial Development, Sam Boddy, Director, General Administration Building, Olympia, Washington. (Ad page 9)

West Palm Beach Chamber of Commerce, Greg Marquez, 600 North Flagler Drive, West Palm Beach, Florida. (Ad page 87)

The Kinnear Manufacturing Company, Wallace Pearson, 1191 Fields Avenue, Columbus 16, Ohio. (Ad page 54)

Other:

American Creosote Works, Inc., S. B. Braselman, Jr., Vice President, 1305 Dublin Street, New Orleans, Louisiana. (Ad page 80)

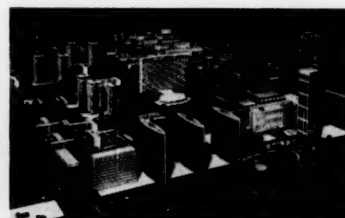
CLASSIFIED ADS 86

PROFESSIONAL CARD ADS 87

BRIEFS

professional center. The 28-acre park is owned by Prentice-Hall, and sites there will be leased and developed as a high-grade administrative, executive, research and development center. Industrial Realty Company, San Carlos, is handling development of the park.

State Question 391, a constitutional amendment creating a new state industrial finance authority, has been approved by a substantial majority of the Oklahoma voters. The program sets up a \$10 million state revolving fund to supplement private and local industrial foundation capital in financing new industrial buildings, both for new industry and for the expansion of existing industry. With this plan, a 100 per cent industrial financing package can now be provided in Oklahoma. The state revolving fund can be raised to \$20 million by the legislature if additional money is needed.



Scale Model of "Century City."

Plans to build a complete new city, on 265 acres of undeveloped land in the Beverly Hills area, have been announced jointly by Webb & Knapp, Inc., and Aluminum Company of America. The land will be acquired from Twentieth Century Fox Film Corporation at a cash price of \$43 million, according to Webb & Knapp President William Zeckendorf. Alcoa will participate in the property acquisition through purchase of a substantial interest in 91091 Corporation, a Webb & Knapp subsidiary established to acquire the land and to develop what will be called "Century City". To provide a self-contained community for 30,000 persons, Century City will represent the largest privately-financed urban development in the nation, and more than \$250 million worth of buildings will be constructed on the site during the next decade.

ID SECRET SITE SERVICE

There may be sound reasons why you should wish to obtain preliminary information on possible sites without revealing your interest or identity. Recognizing this, INDUSTRIAL DEVELOPMENT offers a Secret Site Service to readers who hold positions of responsibility with manufacturers or other business firms having a legitimate interest in sites. Complete information, including site specification forms, will be sent promptly and confidentially at your request. Address SECRET SITE SERVICE, Conway Publications, Inc., North Atlanta 19, Georgia.



President: So what? We're not in the market for bonds. You are supposed to help us find the best possible plant location for our expansion program.

Engineer: Yes, sir . . . but good government is a major factor in guaranteeing the right kind of industrial climate for such a big investment, isn't it?

President: Certainly, but . . .

Engineer: North Carolina is the state where good government is a habit. The fact that Moody's Investors Service and Standard and Poor now give North Carolina bonds the highest available rating reflects nation-wide confidence in North Carolina's sound government and stable fiscal policy.

President: That is impressive. But what about our plant location?

Engineer: I'm all set to recommend several good locations—all in North Carolina. That State has what it takes to make any industrial operation successful.

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